Ridgeline Installation and Upgrade Guide

Software Version 3.0

Contents

1 Installation Overview

CHAPTER

This chapter provides an overview of the installation or upgrade of Ridgeline, and includes the following topics:

Installation Overview

Ridgeline is a powerful, yet easy to use, client-server application for the centralized management of a network of Extreme Networks switches and selected third-party devices. Ridgeline offers a comprehensive set of network management tools that are easy to use from a client workstation with a web browser and the appropriate Java plug-in. The Ridgeline software can be installed on systems running Windows Vista, XP, Windows 2003 server, Windows 2008 server, or Windows 7 (Ridgeline 32-bit version only) on SPARC workstations running Solaris 10, or on systems running Red Hat Enterprise Linux version 5.

There are several options for installing the Ridgeline 3.0 software, depending on whether you already have versions of Ridgeline installed, or whether this is a new Ridgeline installation.

The Ridgeline Server

The Ridgeline server requires a license key, installed into the server, to enable clients to connect to the server. You can perform the installation successfully without a Ridgeline license, but you will need to add a license key by running the License Manager, in order to use the Ridgeline product. License key installation is separate from the Ridgeline server installation.

You can run the License Manager at any time to add or upgrade licenses.

The installation process is very similar under Windows, Solaris, or Linux.

- See for detailed instructions.

● See "Adding or Upgrading a License Key" on page 23 for instructions on running the License Manager.

There are several additional (optional) components you may want to install along with your Ridgeline server: a difference viewer you can use to compare configuration files within the Configuration Manager, and the SSH enabling key, which enables Ridgeline to use SSH2 instead of Telnet to communicate to the devices Ridgeline manages (assuming the devices are enabled to use SSH), and to securely upload and download configuration files.

● See "Installing a Difference Viewer" on page 29 for instructions on obtaining and installing a difference viewer.

● See "Enabling SSH for Secure Communications" on page 29 for information on enabling Ridgeline to use SSH.

Upgrading the Ridgeline Server

From time to time Extreme Networks may choose to release updates to Ridgeline as a Service Pack release. On systems with a previously installed base release of the Ridgeline server, you can upgrade to a service pack release by installing a Ridgeline service pack patch. See "Upgrading Ridgeline to a Service Pack Release" on page 10 for details.

> **NOTE**
>
> If you have been running a beta version of the Ridgeline 3.0 software, you must uninstall the beta version and do a new install of the final version. You cannot upgrade a beta version of the Ridgeline 3.0 software to the general availability (GA) release of the software.

The Ridgeline Client

The Ridgeline client is an application that is launched from a Microsoft Internet Explorer or Mozilla Firefox browser. A browser is also required to display Ridgeline reports and to view the Ridgeline online help.

The Ridgeline client can run on a different type of system from the server; for example, you can run the client on a Windows system connected to a Ridgeline server installed on a Linux system.

No software installation is required for a client to connect to the Ridgeline server; however, the Java 1.6.0_10 plug-in is required, and you will be prompted to install it if it is not already present.

There is no separate installation package for the Ridgeline client. When you connect to the Ridgeline server with a browser and launch the Ridgeline client, all required files are downloaded and installed on your system automatically.

No license is needed to run the Ridgeline client; however, the Ridgeline server must have a valid license installed before any client connections are allowed.

System Requirements

The following sections specify the system requirements for installing and running Ridgeline 3.0.

Please check the most current version of the *Ridgeline Release Notes* for any additional or changed requirements for the Ridgeline release you are installing.

Windows Vista/XP/2003 Server/2008 Server/Windows 7

The Ridgeline Server. The system requirements for the Ridgeline server on Microsoft Windows are as follows:

● Microsoft Windows Vista, Windows XP Professional with SP1 or later, Windows 2003 server, Windows 2008 server, or Windows 7 (Ridgeline 32-bit version only) running on an Intel Pentium-compatible CPU.

   Both 32-bit and 64-bit versions of the Windows operating system are supported.

● 2 GB RAM minimum, 4 GB recommended.

   Up to 4 GB may be needed to manage very large numbers of devices (1000 or more).

● 2 GB disk space available, NTFS filesystem recommended.

● 2 GB of swap space minimum for the 32-bit version of Ridgeline; for the 64-bit version, we recommend a minimum of 4 GB of swap space.

● 1 GHz or greater Pentium-compatible processor (2 GHz or greater recommended).

The Ridgeline server software requires the 1.6.0_10 Java runtime package, which is included in the server installation. No separate installation is needed.

> **NOTE**
>
> Additional disk space may be needed to hold alarm logs and other runtime data. The amount of space depends on the number of devices and the number of traps and syslog messages generated by the managed devices.

The Ridgeline Client. The system requirements for the Ridgeline client on Microsoft Windows are as follows:

● Windows Vista, Windows XP Professional with SP1 or later, Windows 2003 server, Windows 2008 server, Windows 7 (Ridgeline 32-bit version only) running on an Intel Pentium-compatible CPU.

● A monitor that supports at least 1024 x 768 resolution, and 16-bit color. Your system display settings must be set for at least 65536 colors.

● 512 MB RAM minimum (up to 1 GB recommended).

● 256 MB of disk space, NTFS filesystem recommended.

● Swap space equal to double the amount of memory. For example, if you have 512 MB of RAM, you should have 1 GB of swap space.

● A browser (Mozilla Firefox or Microsoft Internet Explorer) is required to launch the Ridgeline client, display reports, and view the Ridgeline online help.

Sun Microsystems Solaris 10

The Ridgeline Server. The Ridgeline server software, version 3.0, is supported on the Sun Solaris operating environment on SPARC workstations. The system requirements for the server and client are as follows:

- 2 GB RAM minimum, 4 GB recommended.

  Up to 4 GB may be needed for very large numbers of devices (1000 or more).
- 400 Mhz or better processor
- 2 GB disk space available.
- 2 GB of swap space minimum for the 32-bit version of Ridgeline; for the 64-bit version, we recommend a minimum of 4 GB of swap space.

The Ridgeline server software requires the 1.6.0_10 Java runtime package, which is included in the server installation. No separate installation is needed.

NOTE

Additional disk space may be needed to hold alarm logs and other runtime data. The amount of space depends on the number of devices and the number of traps and syslog messages generated by the managed devices.

The Ridgeline Client. The system requirements for the Ridgeline client on Solaris are as follows:

- A monitor that supports at least 1024 x 768 resolution, and 16-bit color. Your system display settings must be set for at least 65536 colors.
- 512 MB RAM minimum. (Up to 1 GB recommended.)
- 256 MB disk space available.
- Swap space equal to double the amount of memory. For example, if you have 512 MB of RAM, you should have 1 GB of swap space.
- A browser (Mozilla Firefox) is required to launch the Ridgeline client, display reports, and view the Ridgeline online help.

Red Hat Enterprise Linux 5

The Ridgeline Server. The Ridgeline server software, version 3.0, is supported on Red Hat Enterprise Linux version 5. Both the 32-bit and 64-bit versions are supported, only on X-86 based platforms. The system requirements are as follows:

- 2 GB RAM minimum, 4 GB recommended.

  Up to 4 GB may be needed for very large numbers of devices (1000 or more).
- 1 GHz or greater Pentium-compatible processor (2 GHz recommended).
- 2 GB disk space available.
- 2 GB of swap space minimum for the 32-bit version of Ridgeline; for the 64-bit version, we recommend a minimum of 4 GB of swap space.
- A GUI/Desktop environment must be installed on the server machine.

The Ridgeline server software requires the 1.6.0_10 Java runtime package, which is included in the server installation. No separate installation is needed.

NOTE

Additional disk space may be needed to hold alarm logs and other runtime data. The amount of space depends on the number of devices and the number of traps and syslog messages generated by the managed devices.

The Ridgeline Client. The system requirements for the Ridgeline client on Red Hat Enterprise Linux are as follows:

● A monitor that supports at least 1024 x 768 resolution, and 16-bit color. Your system display settings must be set for at least 65536 colors.

● 512 MB RAM minimum (1 GB recommended).

● 256 MB disk space available.

● Swap space equal to double the amount of memory. For example, if you have 512 MB of RAM, you should have 1 GB of swap space.

● A browser (Mozilla Firefox 1.5 or higher) is required to display reports and view the Ridgeline online help.

Browser Requirements for Launching the Ridgeline Client

The Ridgeline client is launched from a browser window. Ridgeline uses signed applets. You will be prompted to accept the security certificate from Extreme Networks the first time you try to launch the applet.

NOTE

The Java plug-in version 1.6.0_10 is required for the Ridgeline client. If this version of the plug-in is not already installed, you will be prompted to download it the first time you try to launch the Ridgeline client.

Table 1 lists the browsers that are supported by the Ridgeline 3.0 release. A browser is also required to display Ridgeline reports and the Ridgeline online help.

Table 1: Ridgeline 3.0 supported browsers

Operating System	Minimum Browser Configuration
Windows	Internet Explorer™ 6.0 or higher, Mozilla Firefox 1.5 or 2.0
Sun Solaris 10	Mozilla Firefox 1.5, 2.0, or 3.0
Red Hat Enterprise Linux version 5	Mozilla Firefox 3.0

NOTE

For the Mozilla Firefox browser, you must install the Java plug-in, and then link it to the Firefox browser. See

Upgrading Ridgeline to a Service Pack Release

From time to time Extreme Networks may elect to release updates to the current Ridgeline release as Service Packs. Service Packs are minor releases that provide fixes for known problems from previous releases.

A Service Pack is released as a patch release that integrates the Service Pack fixes into an existing base Ridgeline software installation. If you already have the Ridgeline software installed on your system when a Service Pack is released, you can add the Service Pack fixes by installing the patch release. See "Installing a Service Pack Release" on page 42 for installation instructions.

If the Service Pack you want to install is for a different base release than the one currently installed on your system, first install the base release and then install Service Pack patch.

After you upgrade the Ridgeline 3.0 server to a Service Pack release, if any files are necessary to run the Ridgeline client on your system, they are downloaded and installed automatically when you launch the client.

Obtaining a License Key for the Ridgeline Server

To log in to the Ridgeline server from a Ridgeline client, Ridgeline must be configured with a valid license. You can install the software without a license key, but you cannot connect to it from a Ridgeline client. (If you install the product without a license key, you can add the key later using the License Manager, as described in "Adding or Upgrading a License Key" on page 23.)

● An *evaluation* license allows you to run the product on a temporary basis. If you want to continue using the product beyond the evaluation period, you must obtain a permanent license.

● A *permanent* license has no time limit. Permanent licenses are sold based on the number of devices you want Ridgeline to manage.

Both permanent and evaluation license keys are 14-character keys that start with "RS" and are followed by 12 additional upper- and lower-case alphabetic characters, numbers, and special characters such as "+". The license key is NOT the same as the activation key, which starts with "RC," and is found on the license agreement shipped with your purchased product. You use the activation key to obtain a permanent license key as described below.

Ridgeline licenses allow you to use all of the standard features of the product, including discovery and visualization of the devices in your network, scripting, and point-and-click provisioning for VLANs and EAPS domains. Additional feature licenses are available from Extreme Networks that unlock additional Ridgeline features, including: identity management, VM support, and service provider features, such as E-LINE, E-LAN, VMAN (PB), PBB and VPLS discovery, monitoring, and provisioning for an unlimited number of devices. For more information about the various types of software licenses available for Ridgeline, refer to the *Ridgeline Release Notes*.

Evaluation Licenses

You do not need an activation key to obtain an evaluation license key. To obtain an evaluation license key, go to www.extremenetworks.com/go/ridgelinelicense.

Select the option to obtain an evaluation license key. You are asked to enter your name, company information, and similar information, and an email address to which your license key should be sent.

Your evaluation license key will be sent to you by return email.

If your evaluation license expires before you have finished evaluating the product, you can request another evaluation key—up to three evaluation keys for a total of 90 days of evaluation use.

Permanent Licenses

To obtain a permanent license key, you must provide your activation key, found on the license agreement shipped with your purchased product.

To request a permanent key, go to www.extremenetworks.com/go/ridgelinelicense and select the option to obtain a permanent license key.

Fill in the requested information, and enter your activation key. The activation key is a 14-character key that starts with "RC" found on the license agreement you received when you purchased the product.

Your permanent license key will be sent to you by return email.

2

CHAPTER

Installing the Ridgeline 3.0 Server

This chapter describes how to install or upgrade the Ridgeline 3.0 server software in Windows, Solaris, and Linux, and includes the following sections:

- Installing the Ridgeline Server on page 13
- Installation Overview on page 14
- Server Installation Steps on page 15
- Adding or Upgrading a License Key on page 23
- Starting and Stopping the Ridgeline Server on page 24
- Configuring the Ridgeline Server for NATed Client Connections on page 25
- Installing Ridgeline on a Multi-Homed Server on page 26
- Installing a Difference Viewer on page 29
- Enabling SSH for Secure Communications on page 29
- Uninstalling the Ridgeline Server Software on page 31

Installing the Ridgeline Server

The Ridgeline server can be installed in the following environments:

- Microsoft Windows Vista, Windows XP Professional with SP1 or later, Windows 2003 server, Windows 2008 server, or Windows 7 (Ridgeline 32-bit version only) running on an Intel Pentium-compatible CPU

    or

- Solaris 10 running on a SPARC system

    or

- Red Hat Enterprise Linux Version 5

See "System Requirements" on page 7 for memory, CPU, disk and other requirements.

> **CAUTION**
>
> If you are running an evaluation version of the Ridgeline 3.0 software, *and* you want to retain the information in your Ridgeline database, *DO NOT REINSTALL th*e Ridgeline software to upgrade to a permanent license.

Reinstalling Ridgeline will reinitialize the database, which erases all information in the database. To update an evaluation copy of the Ridgeline server to a licensed copy without reinitializing the database, follow the update procedure described in "Adding or Upgrading a License Key" on page 23.

User Permissions

To install the Ridgeline software components as services under Microsoft Windows, or as daemons under Solaris/Linux, you must have administrator privileges on that system. In addition, if you want to be able to import user and host information from a Windows Domain Controller, the Ridgeline server must run with permissions that allow it to get user information from the Domain Controller.

Local Name Resolution for the Server

The system on which Ridgeline is installed must be able to resolve both its own local name and its domain name. For example if you install Ridgeline on a system named `system1`, then it must be able to resolve both `system1` and its domain name, such as `system1.company.com`. You can test for this by attempting to ping the system using both the local name and the domain name. If there are problems resolving either of these names, make sure the `hosts` file contains the correct information.

Required Patches for Solaris

The Solaris operating environment may require patches for the Ridgeline software to function properly. Make certain these patches have been installed before you install the Ridgeline server software.

For the most current information on required patches, see the *Ridgeline Release Notes* that accompanies your Ridgeline software, or go to the Extreme Networks web site at www.extremenetworks.com.

Setting the Run Level for Linux

On Linux systems, in order for the Ridgeline database and server components to start automatically at system boot, the run level on the server must be set to 5.

Installation Overview

The installation process is very similar under all three operating environments: the few differences are noted as appropriate during the description of the process.

To install the Ridgeline server you will need the following information:

● The port that the Ridgeline server will use to communicate with the database (default is 10553)

● The HTTP port for communication with Ridgeline clients (default is 8080)

● See "Obtaining a License Key for the Ridgeline Server" on page 10 for more information.

You can use any port numbers (numbers between 1024 and 65535 are recommended), except port numbers already in use by another process, or ports 514, 3873, 8083, 10550, 10554, 10555, and 10556, which are used by Ridgeline for internal functions. During the installation process, if you specify a port that Ridgeline uses internally, you are prompted to select a different port number.

If you intend to keep multiple versions of the Ridgeline server on the same computer, to avoid a port conflict each Ridgeline server must be configured to use a unique port number to communicate with the database, or all but one of the Ridgeline servers must be disabled.

NOTE

Extreme Networks recommends that you choose port numbers that are not currently registered at Internet Assigned Numbers Authority (IANA). To check if a port number is registered, go to http://www.iana.org/numbers.html.

Within the installation procedure you can choose to do the following:

● Enable automatic information updates, allowing Ridgeline to connect to the Extreme web site when you start the Ridgeline client, and once every 24 hours thereafter to obtain a list of the current ExtremeWare and ExtremeXOS releases as well as the latest Ridgeline patches.

● Start the Ridgeline database and server components manually at system startup (in Windows).

● Restart your system to start the Ridgeline database and server.

After your installation is complete, you must run the License Manager to install your Ridgeline license key(s). Clients will not be able to connect to the Ridgeline server until that is done.

NOTE

Prior to installing Ridgeline, make sure the system where you are installing the software is DNS-resolvable and accessible both by IP address and by hostname from all machines where the Ridgeline client will be launched. If it is not, add an entry for the system in the local DNS server or the hosts file on the client machines.

Server Installation Steps

To install the Ridgeline server do the following:

1 Download the Ridgeline 3.0 server software for your chosen platform (Windows, Linux or Solaris) from the Extreme Networks software download page, and extract the contents of the zip or tar file into a temporary directory.

   or

   Insert the Ridgeline server installation CD into your CD drive.

2 If you are installing from CD, you will find three installation executables, one for each platform (Windows, Linux, and Solaris). If you downloaded from the web site, only the executable for your platform will be included.

3 Start the installation wizard as follows:

   For **Windows,** run `Ridgeline_3-0_win32.exe` or `Ridgeline_3-0_win64.exe`, depending on your version of the operating system.

For **Linux**:

a   If you downloaded the installation from the web site, change the permissions on the Linux bin file as follows:

`chmod 755 Ridgeline_3-0_linux32.bin`

or

`chmod 755 Ridgeline_3-0_linux64.bin`

(Skip this if you are installing from the CD).

b   Run the executable `Ridgeline_3-0_linux32.bin` or `Ridgeline_3-0_linux64.bin`, depending on your version of the operating system.

For **Solaris**:

a   If you downloaded the installation from the web site, change the permissions on the Solaris bin file:

`chmod 755 Ridgeline_3-0_solarisSPARC.bin`

(Skip this if you are installing from the CD).

b   Run the executable `Ridgeline_3-0_solarisSPARC.bin`

InstallShield will extract the Ridgeline Installation Wizard. This may take a few minutes.

4   The Ridgeline Installer Welcome screen appears.

Click **Next** to continue.

Figure 1: InstallShield Wizard Welcome Screen
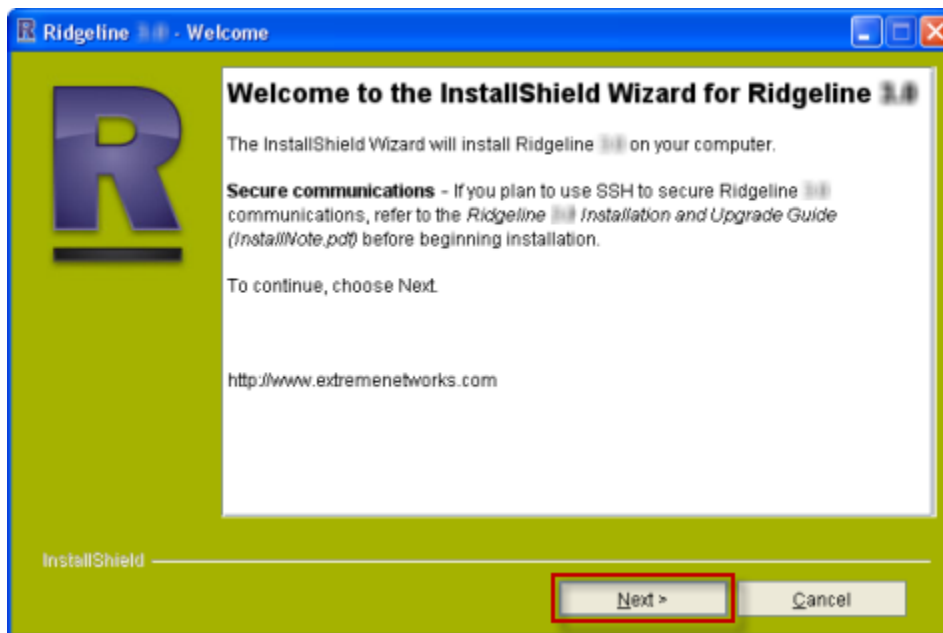
5   If a previous version of Ridgeline is detected, you are notified that the existing Ridgeline services must be stopped.

On Windows systems, if the Ridgeline components were installed as services, select one of the following options:

- Select **Yes** to have the installer shut down the Ridgeline services (if they are running), or

- Select **No** to exit the installation process.

Click **Next** to continue.

On Solaris/Linux systems, you must exit the installation process and stop the Ridgeline database and server manually. See "Stopping the Server on Linux or Solaris" on page 25.

6 Next, the Ridgeline Software license agreement is presented; after you read the agreement, click the **Accept** button to accept the agreement, and click **Next** to proceed.

Figure 2: License Agreement
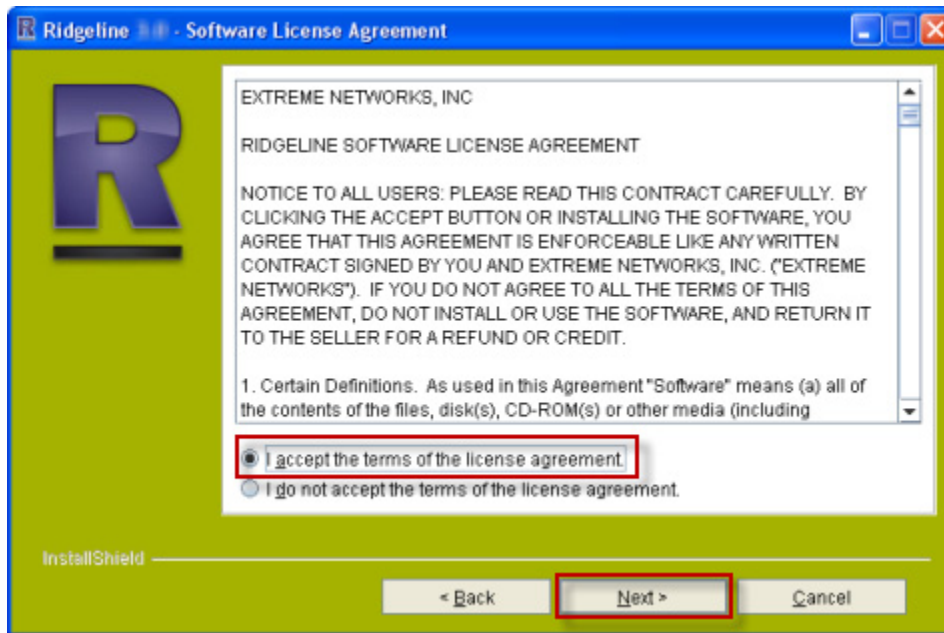
7 Verify or enter a location for the Ridgeline installation. By default this is the directory `C:\Program Files\Extreme Networks\Ridgeline Service Advisor 3.0` for Windows, or `/opt/ExtremeNetworks/RidgelineServiceAdvisor3.0` for Linux or Solaris.

You can type a different directory path, or browse to find the directory in which you want to install.

Click **Next** to continue.

Figure 3: Installation Destination
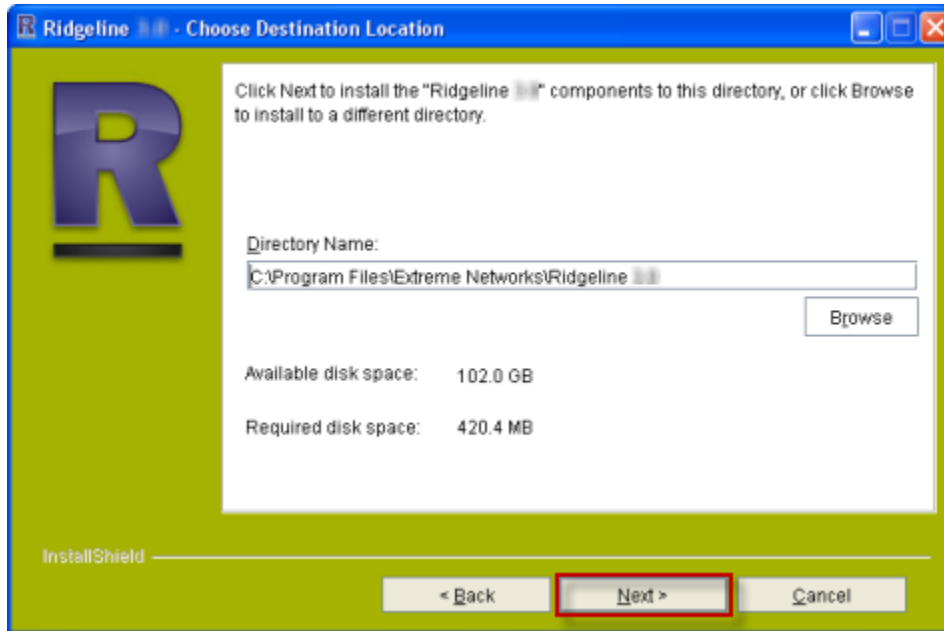
8 You are next asked to specify (verify or change) the ports to be used for communication between the Ridgeline server and the database (default is 10553) and between the server and Ridgeline clients via HTTP (default is 8080). You can use any port numbers (numbers between 1024 and 65535 are recommended), except port numbers already in use by another process, or ports 514, 3873, 8083, 10550, 10554, 10555, and 10556, which are used by Ridgeline for internal functions.

> **NOTE**
>
> If you intend to keep multiple versions of the Ridgeline server on the same computer, to avoid a port conflict, each Ridgeline server must be configured to use a unique port number to communicate with the database, or all but one of the Ridgeline servers must be disabled. If multiple versions of the Ridgeline server are detected on the computer, the older versions are disabled automatically during installation.

Figure 4: Port Information
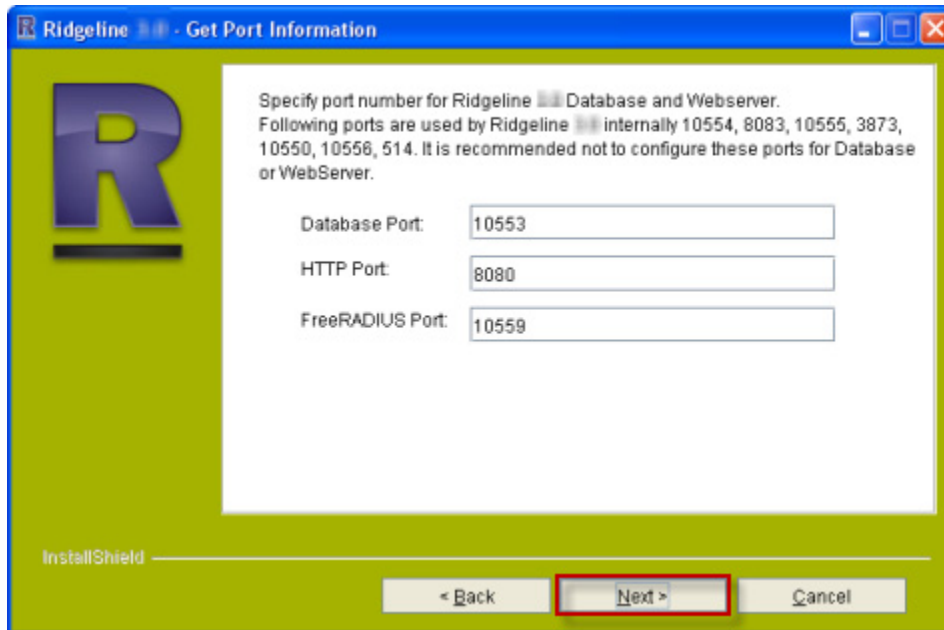
9   A dialog box appears asking about several options you can enable:

●   **Enable Automatic Updates**. This feature configures Ridgeline to automatically retrieve the most current information about device and slot software and bootrom images from the Extreme Networks web site each time you connect the client to the Ridgeline server.

    If you enable this feature, Ridgeline will connect to the Extreme Networks web site at server start-up and once every 24 hours to obtain a list of the current software releases, and a list of any available Ridgeline patches. No information is sent to Extreme Networks except an indication that you are running with an evaluation license, if that is the case.

> **NOTE**
>
> If you disable this feature, you will not able to obtain software update information through the Software Update feature in the Firmware Manager. You can enable this feature at a later time through Ridgeline Administration, Server Properties tab, under the External Connections area. Click the checkbox to allow connection to the Extreme Networks web site.

●   **Start Ridgeline 3.0 services automatically**. This feature starts Ridgeline services automatically when Windows starts. On Solaris/Linux systems, Ridgeline services start automatically upon startup and this setting is not user configurable.

Click **Next** to continue.

Figure 5: Settings
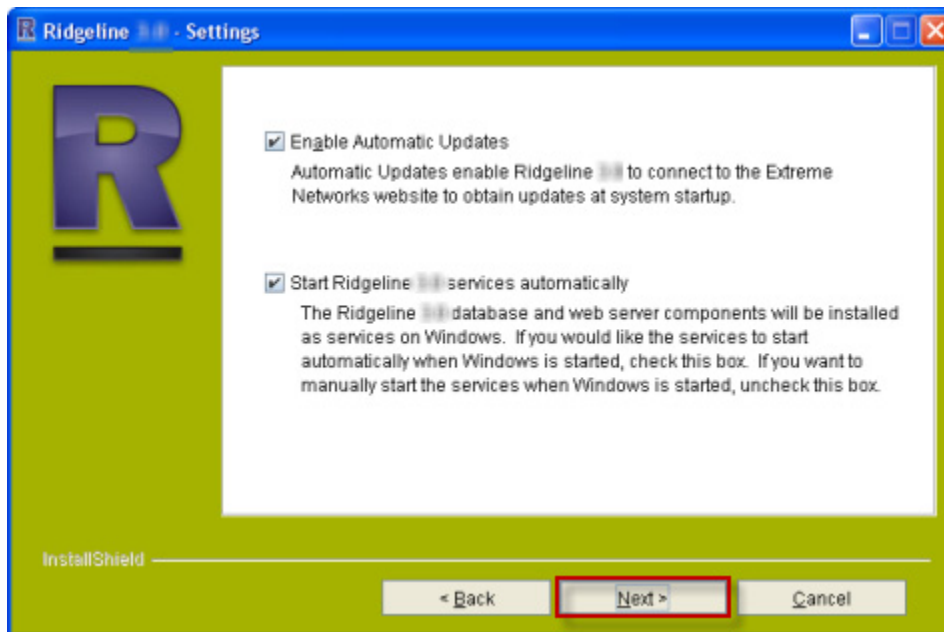
10 The next panel asks you to verify the components and installation directory. Click **Install** to proceed with the installation, and follow the onscreen instructions.

Figure 6: Installation Summary
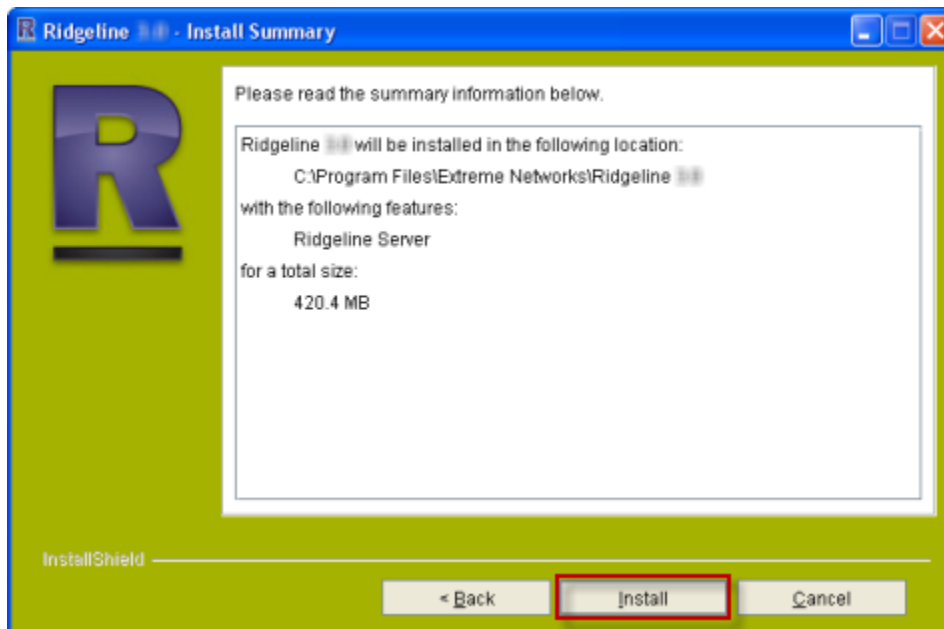
The installation process begins.

Figure 7: Installation Progress
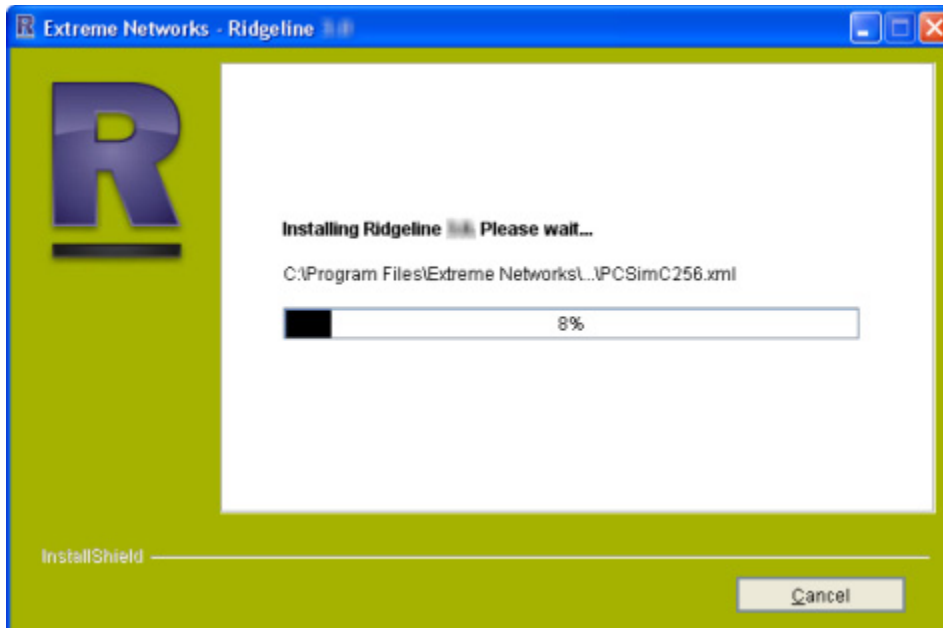
11 If the installation was successful, the final dialog box displays a summary message. If there were any problems, they will be noted here. Click **Finish** to continue.

Figure 8: Post Installation Summary
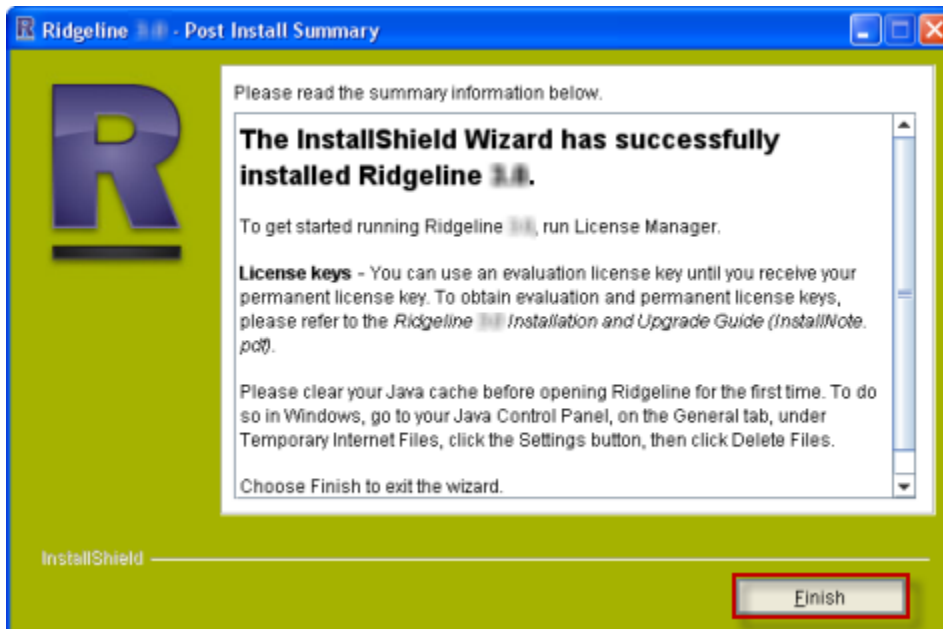
12 Click OK to accept the warning messages that displays. The VM tracking feature requires an FTP server running prior to starting Ridgeline. Refer to the "Managing Virtual Machines" chapter in the *Ridgeline Reference Guide* for more information.

Figure 9: VM Tracking Requires an FTP Server Running Warning
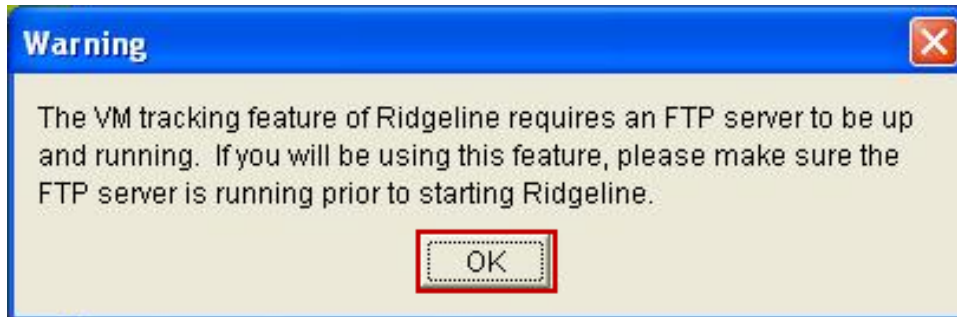
13 Ridgeline prompts you to restart your system. You must either restart your system or start the Ridgeline services manually before a client can connect to the Ridgeline server.

Click **Finish** to complete the installation process.

Figure 10: Reboot
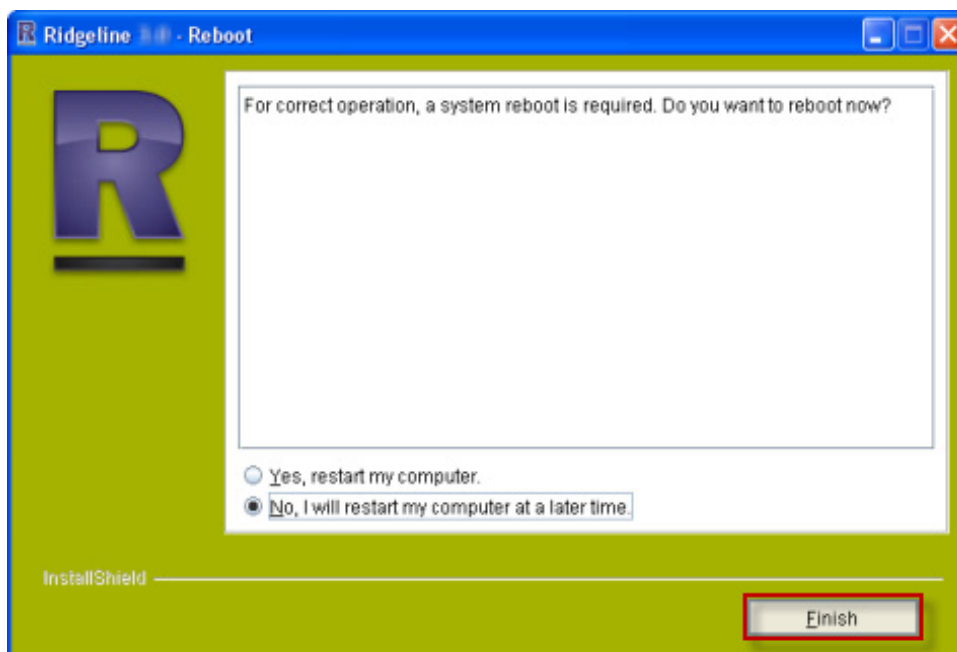
14 Launch the License Manager and install your Ridgeline licenses. You can do this at any time after you have installed the Ridgeline server. The server can be running while you do this, but this is not required.

See "Adding or Upgrading a License Key" on page 23 for more detailed instructions.

Adding or Upgrading a License Key

To install an evaluation or permanent license for Ridgeline, or to upgrade an evaluation license to a permanent license you must run the License Manager. Until you install a license, no client will be able to connect to the Ridgeline server.

NOTE

You must install a Base-50 license key even if you have purchased additional 50-node or 250-node license keys. The Base-50 license gives you access to the Ridgeline server; the optional upgrade licenses enable you to manage additional devices.

To install or upgrade a license, do the following:

1 Run the License Manager:

● In Windows, from the **Start** menu, select **Start > Programs > Extreme Networks > Ridgeline 3.0 > License Manager**

● In Linux or Solaris, go to the Ridgeline installation directory (by default `/opt/ExtremeNetworks/RidgelineServiceAdvisor3.0`) and run **`instlic.bin`**

You must have write permission for the Ridgeline installation directory.

In Linux, the License Manager is also available in the **Startup** menu. Select **Others > License Manager**

In Solaris, the License Manager is also available in Administrative Tools. Select **Administrative Tools > Extreme Networks > Ridgeline > License Manager**

The License Manager window opens:

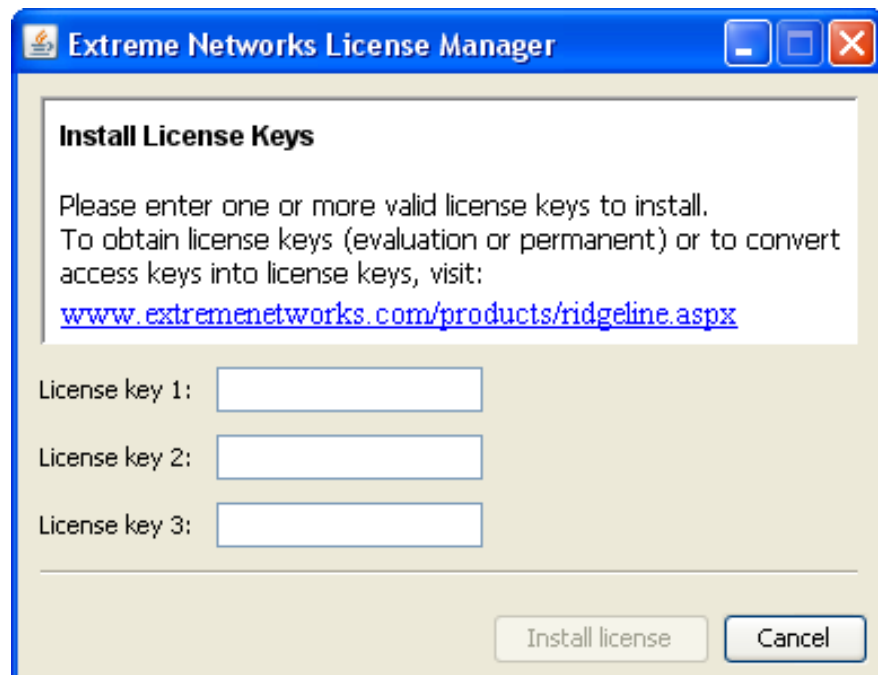**Figure 11: License Key Manager**

2   Enter the 14-character license key(s) in the appropriate fields, and click **Install License**.

A pop-up window tells you whether the installation was successful or not.

Adding a License for an Upgrade Product

When you purchase a product upgrade option such as a 50-node license or an Advanced Services licenses, you receive a separate key to enable Ridgeline to manage additional devices or unlock additional features. To add the license key for a Ridgeline upgrade, run the License Manager as described above.

Starting and Stopping the Ridgeline Server

By default, the Ridgeline server components installed as services (in Windows) or daemons (in Linux or Solaris) are started automatically when you start or restart your computer.

If you elected not to restart your computer at the end of the installation process, then you must start the Ridgeline database and server manually.

In Windows, if you selected the option to start the Ridgeline server components manually, then you must start them before running Ridgeline.

Starting the Server on Windows

To start or restart the Ridgeline services manually, do the following in the specified order:

1   Open the **Services** window (found under **Administrative Tools** in the **Control Panel**).

2   Highlight **Ridgeline 3.0 Database Engine,** right-click and select **Start** from the pop-up menu to start the Ridgeline database.

3   Start the **Ridgeline 3.0 Server** and **Ridgeline 3.0 FreeRADIUS Server** in the same manner.

Starting the Server on Linux or Solaris

To start or restart the Ridgeline daemons manually, do the following:

●   Enter the following commands in the order shown:

```
/etc/init.d/RidgelineDB30 start
/etc/init.d/RidgelineServer30 start
/etc/init.d/RidgelineFreeRadius30 start
```

You must have administrative rights to access init.d files.

Stopping the Server on Windows

To **stop** the Ridgeline server:

1   Open the **Services** window (found in **Administrative Tools** in the Control Panel).

2   Highlight **Ridgeline 3.0 Server,** right-click and select **Stop** to stop the Ridgeline server. This should be done while the database is still running.

3   Highlight the **Ridgeline 3.0 Database Engine** and **Ridgeline 3.0 FreeRADIUS Server** in the same manner, right-click and select **Stop**.

Stopping the Server on Linux or Solaris

To stop the Ridgeline server, enter the following commands:

```
/etc/init.d/RidgelineServer30 stop

/etc/init.d/RidgelineDB30 stop

/etc/init.d/RidgelineFreeRadius30 stop
```

Configuring the Ridgeline Server for NATed Client Connections

If clients will be connecting to the Ridgeline server through a connection that uses Network Address Translation (NAT), configure the Ridgeline server as follows:

1   Stop the Ridgeline server if it is currently running. See the previous section for information about how to do this.

2   Set the EPICENTER_SERVER_ADDRESS environment variable to the *hostname* of the Ridgeline server. See "Setting the EPICENTER_SERVER_ADDRESS Environment Variable" on page 26 for information on how to set this variable.

3   Open the `runserver.sp` file, which resides in `<Ridgeline_install_dir>`/jboss/bin, and add the following entry:

`remoting.bind_by_host=true`

4   In Ridgeline, set the TCP port number that clients use to connect to the Ridgeline server to 56983. To do this, go to Ridgeline Administration, click the Server Properties tab, select Other from the drop-down list, and enter **56983** in the Client Port field.

5   On the client machine, make sure the hostname of the Ridgeline server resolves to the correct outside IP address of the server.

If the server's IP address does not resolve correctly, add an entry for the server in the client's `hosts` file. In Windows, the `hosts` file is `c:\windows\system32\drivers\etc\hosts` (where `c:` is the drive where Windows is installed). In Solaris and Linux, the `hosts` file is `/etc/hosts`.

6   Ensure that the ports used by Ridgeline are accessible through your firewall/NAT setup. Ridgeline uses the following ports:

- jboss ports 3873, 8080 (default), and 8083, which allow the Ridgeline server to talk to the client
- HTTP port 8334, which allows switches to talk to the Ridgeline server in HTTPs mode
- FreeRADIUS port 10559 (default)
- TCP port 56983 for the client to connect to the server in NAT-enabled environments

7 Restart the Ridgeline server, as described in the previous section.

Installing Ridgeline on a Multi-Homed Server

A multi-homed server is one that has more than one network interface card (NIC) installed, and might be using multiple IP addresses. If you are installing Ridgeline on a multi-homed server, you must specify which of the server's IP addresses the Ridgeline server uses. Ridgeline clients use this IP address to connect to the Ridgeline server, and the Ridgeline server uses this IP address for communication with its managed devices. To set the IP address for the Ridgeline server, you configure the EPICENTER_SERVER_ADDRESS environment variable on the server.

For the Ridgeline client to successfully login to a multi-homed server. One of the following two requirements must be met:

- You must launch the client through a hostname, instead of an IP address.
- The EPICENTER_SERVER_ADDRESS environment variable must be set to one of the IP addresses of the server, and you must use that IP address to launch the client.

Setting the EPICENTER_SERVER_ADDRESS Environment Variable

When you configure the EPICENTER_SERVER_ADDRESS environment variable, the Ridgeline server is available only on this interface on the multi-homed machine. To connect to the Ridgeline server from a Ridgeline client, use the specified IP address. On the managed devices, the specified IP address is registered as an SNMP trap receiver.

> **NOTE**
>
> Before proceeding, stop the Ridgeline server if it is currently running. See the for information about how to do this.

To set the EPICENTER_SERVER_ADDRESS environment variable, do the following:

In Windows:

1 From the **Start** menu, select **Settings > Control Panel**.
2 Double click on the System icon to bring up the System Properties window.
3 Click the Advanced tab and the **Environment Variables** button.
4 In the Environment Variables dialog box, under System variables, click **New**.
5 In the New System Variable dialog box, enter EPICENTER_SERVER_ADDRESS in the Variable name field.
6 Enter the IP address to use for communication between the Ridgeline server and the managed devices in the Variable value field, and click **OK**.

Figure 12: System Variable
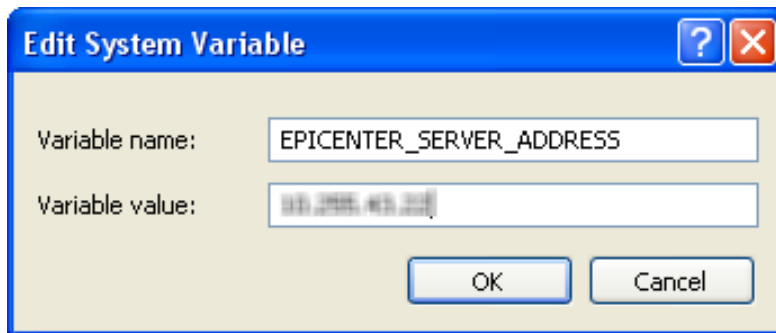
7 Restart Windows to activate the new settings.

> **NOTE**
>
> You can also open a command window and use the SET command from the command prompt to set the EPICENTER_SERVER_ADDRESS environment variable.

In Solaris or Linux:

1 Open the `/etc/ridgeline30.profile` file.

2 Locate the following line in the file:

    EPICENTER_SERVER_ADDRESS=<ip_addr_to_bind_to>

3 Replace `<ip_addr_to_bind_to>` with the IP address to use for communication between the Ridgeline server and the managed devices.

4 Open the `/etc/profile` file.

5 Locate the following line in the file:

    EPICENTER_SERVER_ADDRESS=<ip_addr_to_bind_to>

6 Replace <ip_addr_to_bind_to> with the IP address to use for communication between the Ridgeline server and the managed devices.

7 Start the Ridgeline server to activate the environment variable setting. To do this, enter the following command:

`/etc/init.d/RidgelineServer30 start`

You must have administrative rights to access `init.d` files.

Configuring a Multi-Homed Server with Separate Management and Client Access Networks

If the multi-homed Ridgeline server will have one interface connected to a management network (that is, a network with connections to the managed devices), and another interface on a network used for Ridgeline client access, configure the Ridgeline server as follows:

1 Set the EPICENTER_SERVER_ADDRESS environment variable to **0.0.0.0**, so that the system binds on all interfaces. See "Setting the EPICENTER_SERVER_ADDRESS Environment Variable" on page 26 for information on how to set this variable.

2   Stop the Ridgeline server if it is currently running. See "Starting and Stopping the Ridgeline Server" on page 24 for information about how to do this.

3   Open the `runserver.sp` file, which resides in *`<Ridgeline_install_dir>`*`/jboss/bin`, and add the following entry:

    `epicenter.connect.address=<host_name> or <IP_Address>`

    This entry specifies the address used by applications such as TFTP for connecting to the Ridgeline server. If you specify *`<host_name>`*, make sure the hostname resolves to the correct IP address.

4   Add the following entry to the `runserver.sp` file:

    `epicenter.snmp.connect.ipaddress=<IP_Address>`

    This entry specifies the address used for sending SNMP traps. Note that you must specify an IP address, not a hostname.

5   Open the `jboss-service.xml` file, which resides in *`<Ridgeline_install_dir>`*`/jboss/server/` `epicenter/deploy/http-invoker.sar/META-INF`, and locate the following line:

    `<attribute name="InvokerURLSuffix">:${epicenter.web.port}/invoker/` `JMXInvokerServlet</attribute>`

6   Change the value of the `UseHostName` attribute directly below this line to `true`.

7   On the client machine, make sure the hostname of the Ridgeline server resolves to the correct IP address of the server.

    If the server's IP address does not resolve correctly, add an entry for the server in the client's `hosts` file. In Windows, the `hosts` file is `c:\windows\system32\drivers\etc\hosts` (where `c:` is the drive where Windows is installed). In Solaris and Linux, the `hosts` file is `/etc/hosts`.

8   Start the Ridgeline server, as described in "Starting and Stopping the Ridgeline Server" on page 24.

NOTE

Configuring the multi-homed server in this way is not supported if the server has more than one interface to the management network.

Configuring the Multi-Homed Server with NAT

If the multi-homed Ridgeline server with separate management and client access network interfaces is also used in a NAT configuration, in addition to the procedure above, do the following:

1   In the `runserver.sp` file, which resides in *`<Ridgeline_install_dir>`*`/jboss/bin`, add the following entry:

    `remoting.bind_by_host=true`

2   In Ridgeline, set the TCP port number that clients use to connect to the Ridgeline server to 56983. To do this, go to Ridgeline Administration, click the Server Properties tab, select Other from the drop-down list, and enter **56983** in the Client Port field.

3   On the client machine, make sure the hostname of the Ridgeline server resolves to the correct outside IP address of the server.

    If the server's IP address does not resolve correctly, add an entry for the server in the client's `hosts` file. In Windows, the `hosts` file is `c:\windows\system32\drivers\etc\hosts` (where `c:` is the drive where Windows is installed). In Solaris and Linux, the `hosts` file is `/etc/hosts`.

4   Ensure that the ports used by Ridgeline are accessible through your firewall/NAT setup. Ridgeline uses the following ports:

- jboss ports 3873, 8080 (default), and 8083, which allow the Ridgeline server to talk to the client
- HTTP port 8334, which allows switches to talk to the Ridgeline server in HTTPs mode
- FreeRADIUS port 10559 (default)
- TCP port 56983 for the client to connect to the server in NAT-enabled environments

Configuring the Multi-Homed Server for Client Access from Both Networks

If Ridgeline clients will be connecting from both networks where the multi-homed server resides, do the following in addition to the procedure in "Setting the EPICENTER_SERVER_ADDRESS Environment Variable" on page 26.

1 Stop the Ridgeline server if it is currently running. See "Starting and Stopping the Ridgeline Server" on page 24 for information about how to do this.

2 On the Ridgeline server, open the `runserver.sp` file, which resides in `<Ridgeline_install_dir>/jboss/bin`, and add the following entry:

```
remoting.bind_by_host=true
```

3 On client machines in both networks, make sure the hostname of the Ridgeline server resolves to the correct IP address of the server.

4 Start the Ridgeline server, as described in "Starting and Stopping the Ridgeline Server" on page 24.

Installing a Difference Viewer

Ridgeline provides a Diff feature that allows you to compare configuration files using a Difference Viewer. This feature requires that a Difference Viewer be installed on the client system. A Difference Viewer can automatically compare and highlight the differences between two files. The Diff feature does not work with a standard text editor.

You can use any Diff viewer that is installed on the system where your Ridgeline client is running. Select **Difference Viewer** from the **Tools** menu to tell Ridgeline the location of the viewer. If you do not have a Diff viewer already installed, you must install one on your client system in order to use the Diff feature.

For Windows. You can obtain a Diff viewer from the following sources:

- **WinMerge.exe**; downloadable from http://winmerge.sourceforge.net
- **Araxis Merge**; 30 day free trial evaluation downloadable from http://www.araxis.com

For Linux or Solaris. **sdiff** (in `/usr/bin/sdiff`) is assumed as the default Diff viewer.

Enabling SSH for Secure Communications

By default, the Ridgeline server communicates to the devices it manages using unencrypted access, and unencrypted file transfers. In addition, the communications between the Ridgeline server and its clients are also unencrypted by default.

● By installing an SSH enabling key, you can use SSH2 instead of Telnet to communicate to the devices Ridgeline manages, and securely upload and download configuration files to and from your Extreme devices.

● By installing an SSH2 server co-resident with the Ridgeline server, and by installing SSH2 clients on the systems where your Ridgeline clients reside, you can use SSH2 to encrypt the communications between the Ridgeline server and Ridgeline clients. See the Appendix in the *Ridgeline Service Advisor Concepts and Solutions Guide* for details on setting up secure client-server communication.

There are three requirements for enabling Ridgeline to use SSH2 to communicate with the devices it manages:

● The Ridgeline SSH enabling key must be installed. Due to export restrictions, you must obtain this module from Extreme Networks. It is not included with the Ridgeline software distribution.

● Your switches must be running versions of ExtremeWare or ExtremeXOS that support SSH, and SSH must be enabled on those devices. Due to export restrictions, a special license is required.

To request versions of ExtremeWare or ExtremeXOS that support SSH, contact Extreme Networks Technical Support.

● SSH must be enabled in Ridgeline for the devices to which you want to communicate using SSH.

> **NOTE**
>
> If the SSH enabling key is not installed in the Ridgeline directory, you will not be able to configure SSH in Ridgeline. The relevant fields will be grayed out.

The Ridgeline SSH Enabling Key

Ridgeline's SSH2 capability can be enabled by installing the Ridgeline SSH enabling key. This module must be downloaded from Extreme Networks, as it is subject to export restrictions. It is not provided with the Ridgeline software distribution.

The SSH2 capability uses strong encryption, so prior to downloading the enabler module you must provide certain information to Extreme Networks in order to confirm compliance with the export regulations administered by the Bureau of Industry and Security under the U.S. Department of Commerce.

To obtain the SSH enabling key, fill out the End-User Certification Form at:

http://www.extremenetworks.com/apps/Ridgeline/ssh.asp

● After you submit the form, Extreme Networks performs a review and responds to you, generally within two business days.

● If the information you provided conforms to the applicable export regulations, you receive an email with the information needed to obtain the SSH enabling key file. Unzip and place the SSH enabling key file in your existing Ridgeline installation directory to unlock the Ridgeline SSH2 features.

> **NOTE**
>
> The file "ssh-enabler" must be installed without a file extension.

● If the information you provided does not conform to the export regulations, you will receive an email indicating a denial of acceptance.

The SSH enabling key must be placed in the top-level Ridgeline installation directory (by default `\Program Files\Extreme Networks\Ridgeline Service Advisor 3.0` in Windows, or `/opt/ExtremeNetworks/RidgelineServiceAdvisor3.0` under Solaris or Linux).

Uninstalling the Ridgeline Server Software

The following sections describe how to uninstall the Ridgeline server software.

For information on uninstalling a Service Pack patch in order to revert to your previously installed version of Ridgeline software, see "Uninstalling the Service Pack on Windows Systems" on page 44 or "Uninstalling the Service Pack on Solaris or Linux Systems" on page 45.

Uninstalling the Server on Windows

An **Uninstall** utility is provided in the Windows **Start** menu. This utility removes all the currently-installed components of the Ridgeline server. It also removes some of the supporting files, and asks about removing certain files that it detects have been modified since installation.

To uninstall the server components, do the following:

1 Shut down the Ridgeline server components if they are still running (see "Stopping the Server on Windows" on page 25 for instructions).

2 Exit all clients.

3 From the **Start** Menu, select **Programs** > **Extreme Networks** > **Ridgeline 3.0** > **Uninstall** to start the uninstall wizard.

Figure 13: Uninstall Wizard
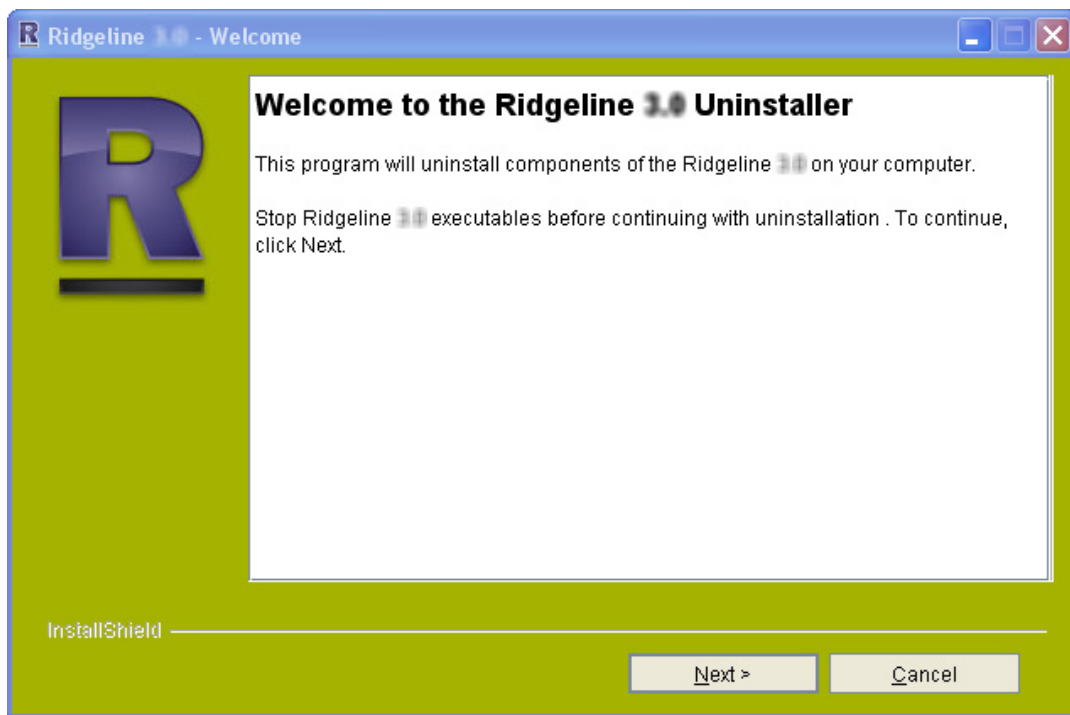
4   Follow the onscreen instructions to uninstall the software.

If you plan to re-install Ridgeline, you should restart your system before you attempt to re-install.

Uninstalling the Server on Linux or Solaris

To remove the Ridgeline server software, follow these steps:

1   Stop the Ridgeline server components if they are running. See "Stopping the Server on Linux or Solaris" on page 25.

2   Exit all clients.

3   Start the uninstall Wizard:

   a   Go to the following Ridgeline directory:

   cd <install_dir>/_uninst

   <install_dir> is the directory (path) where you installed the Ridgeline components. If you installed in the default directory, the path is /opt/ExtremeNetworks/ RidgelineServiceAdvisor3.0.

   b   Execute **uninstaller.bin**.

In Linux, the uninstall Wizard is also available in the **Startup** menu. Select **Others > Uninstall Ridgeline**.

In Solaris, the Ridgeline uninstall Wizard is also available under Administrative Tools. Select **Administrative Tools > Extreme Networks > Ridgeline > Uninstall Ridgeline**

4 Follow the onscreen instructions to uninstall the software.

If you plan to re-install the Ridgeline server, you should restart your system before you attempt to re-install.

The Ridgeline software is now completely uninstalled.

3
CHAPTER

Launching the Ridgeline 3.0 Client

This chapter describes how to connect to the Ridgeline 3.0 server and launch the Ridgeline 3.0 client software, and includes the following sections:

About the Client Initialization Process

The Ridgeline client initialization process makes use of *Java Web Start* technology. Java Web Start allows you to obtain files necessary to run the Ridgeline client directly from the Ridgeline server by pointing a browser to the Ridgeline server and clicking on a hyperlink. The download and installation of the Ridgeline software on the client system takes place automatically.

Each time you launch the client, Ridgeline checks whether you have the most current software version. If you do not, Ridgeline automatically updates the client files on your system.

Client initialization using Java Web Start requires that the client system have a certain version of the Java plug-in installed. If the client system does not have this required Java version, then you are directed to a location where you can download the correct version.

Launching the Client Application

The Ridgeline client application can be launched on systems running one of the following operating environments:

● Microsoft Windows Vista, Windows XP Professional with SP1 or later, Windows 2003 server, Windows 2008 server, or Window 7 (Ridgeline 32-bit version only) running on an Intel Pentium-compatible CPU

or

● Solaris 10

  or

● Red Hat Enterprise Linux Version 5

A Ridgeline client requires a monitor that supports 1024 x 768 resolution, and at least 16-bit color. Your system display settings must be set for at least 65536 colors.

See "System Requirements" on page 7 for memory, CPU, disk and other requirements.

> **NOTE**
>
> There is no separate installation for the client. When you launch the client, any software updates are downloaded from the server and installed automatically.

To launch the client, you need to have the following information:

● The name or IP address of the Ridgeline server to which the client should connect

● The HTTP port that the client uses to communicate with the server (the default is 8080). This is the HTTP port you entered when you installed the Ridgeline server.

To launch the Ridgeline client, do the following:

1 Launch your web browser.

2 Enter the URL for your Ridgeline server, in the form:

   `http://<host>:<port>/`

   Replace *<host>* with the name or IP address of the system where the Ridgeline server is running. Replace *<port>* with the TCP port number that you assigned to the Ridgeline web server during installation.
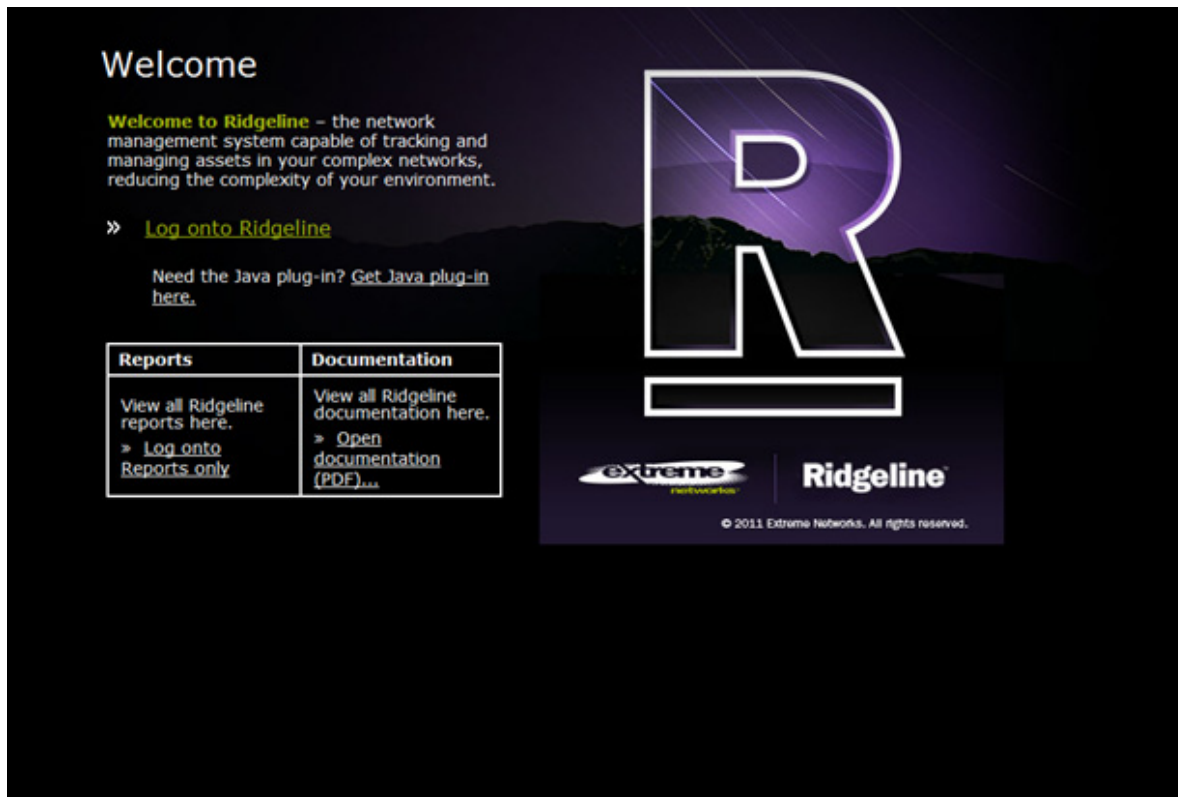
> **NOTE**
>
> If you configured your Ridgeline server to use the default web server port 80, you do not need to include the port number. However, the port used by Ridgeline is 8080 by default, so in most cases you do need to include the port.

3   The Ridgeline Welcome page appears.

Figure 14: Ridgeline Welcome Page

4   Click the **Log on to Ridgeline** link.

5   Ridgeline checks if your system is running the correct version of the Java plug-in. If you are not running the correct version, you are directed to a page where you can download the correct version.

If you are running the correct version of the Java plug-in, the Ridgeline client software is downloaded from the Ridgeline server and installed on the local system.

6   After the software is downloaded, you are prompted whether you want to run the application. Click **Run** to continue.

7 The Ridgeline Log On screen appears, and you are prompted for a username and password.

Figure 15: Ridgeline Log On Screen
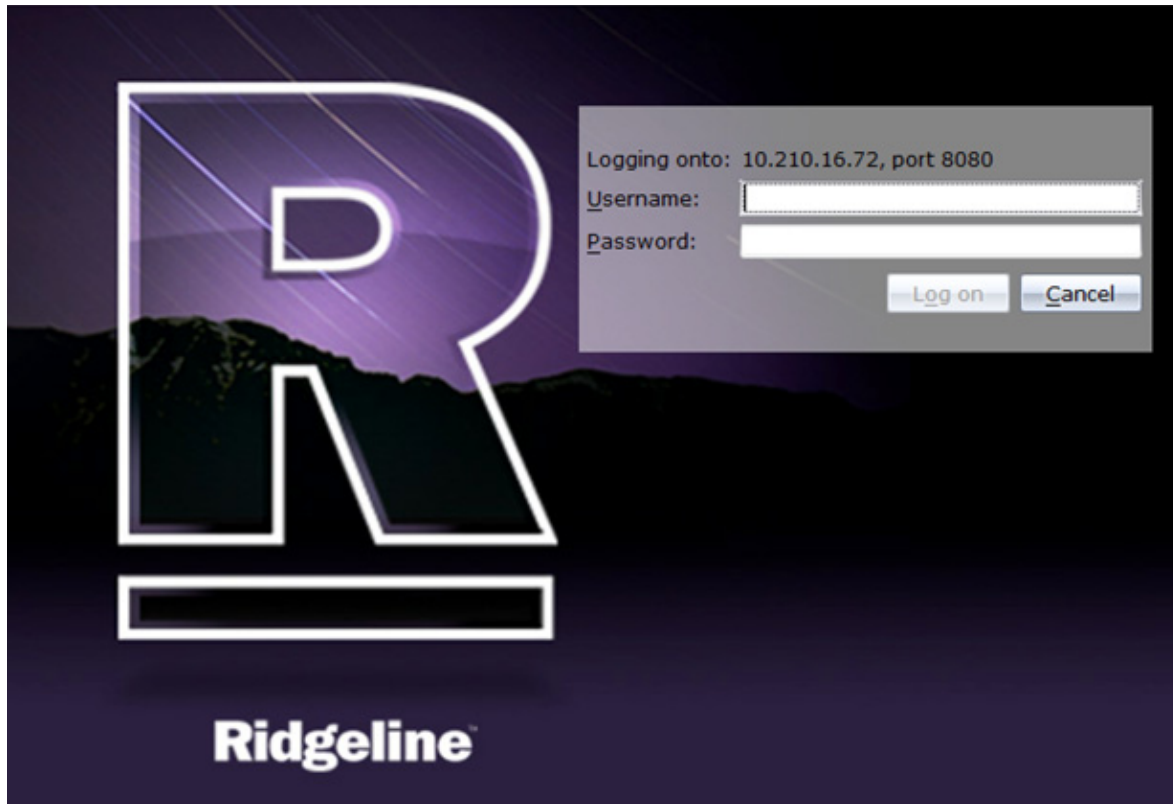
8 If this is the first time you are logging in to Ridgeline, enter **admin** in both the **Username** field and the **Password** field. Click **Log on** to connect to the Ridgeline server.

9 After a successful login, the Ridgeline 3.0 Home screen appears. For instructions on using Ridgeline, see the *Ridgeline Service Advisor Concepts and Solutions Guide*, *Ridgeline Reference Guide*, or the online help.

# Disabling Installation of Desktop Shortcuts

As part of the Ridgeline client initialization process, a shortcut may be installed on your desktop. The desktop shortcut allows you to start the client without having to point a browser to the server (and clicking the **Log on to Ridgeline** link). Installation of the desktop shortcut assumes that the Java setting for Shortcut Creation is set to the default of **Prompt user if hinted**.

You can optionally change the Shortcut Creation setting so that a shortcut is not installed with the Ridgeline client. To do this:

1 From the Control Panel (**Start** > **Settings**> **Control Panel**) double-click the **Java** icon.

2 When the Java Plug-In control panel appears, click the **Advanced** tab.

3 Expand the list of items next to Shortcut Creation.

4 Change the setting to **Never allow**.

Figure 16: Modifying the Java Shortcut Creation Setting
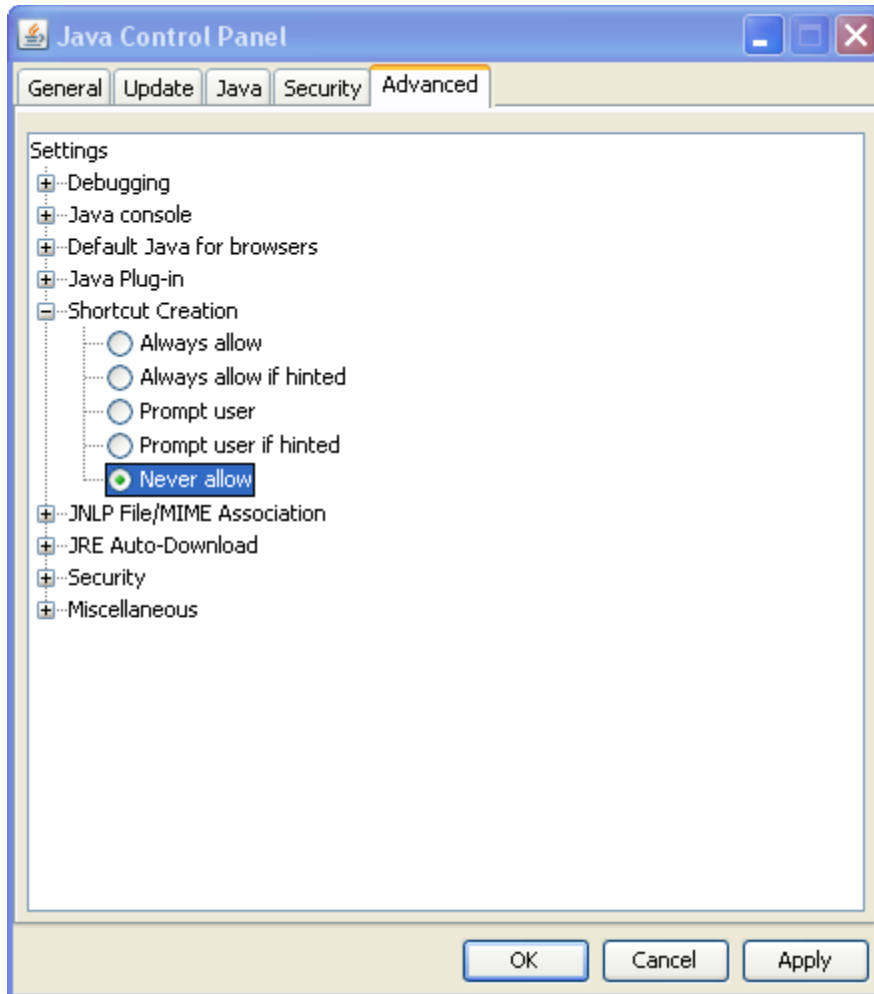
5 Click **OK** to apply the setting and close the Java Plug-In control panel.

Configuring the Firefox Browser for the Java Plug-In

If you plan to use the Mozilla Firefox browser to connect to the Ridgeline server, you must download and install the Java Runtime Environment (JRE) plug-in, and then link it to the Firefox browser. These are two separate steps. Until you do this, you will not be able to log into Ridgeline using Firefox.

To download and install the JRE plug-in, go to the Sun web site at:

http://www.java.com/en/download/manual.jsp

For Windows, you can download either the Online or Offline versions. For Solaris, download the 32-bit version. For Linux, download the self-extracting file (not the RPM version).

For installation instructions, click the **Instructions** link to the right of the download button.

After the plug-in is installed, you must configure and enable the JRE to run applets in your browser. You can find the instructions in one of two ways:

● On the Installation Instructions page, click the "Enable and Configure" link near the top of the page.

● You can also go directly to these instructions at the following URLs:

For **Windows**:

http://www.java.com/en/download/help/5000010400.xml#enable

For **Linux**:

http://www.java.com/en/download/help/5000010500.xml#enable

For **Solaris**:

http://www.java.com/en/download/help/5000010600.xml#enable

Follow the instructions to create a symbolic link to the JRE `libjavaplugin_oji.so` file, and to enable Java under your browser preferences.

4 Upgrading the Ridgeline Software

CHAPTER

This chapter describes how to upgrade the Ridgeline software, and includes the following sections:

Ridgeline Software Upgrade Overview

The Ridgeline software is available in the following forms. You can select which one to install based on the circumstances under which you want to upgrade:

- **Base installation.** To upgrade to a new software release you can just install the new version of the software, either from the installation CD or by downloading the software from the Extreme Networks web site.

  As long as you install the software into a different directory, the two versions can co-exist. See "Installing the Ridgeline Server" on page 13 for instructions.

- **Service Pack.** Service Packs are minor releases that may add new features to Ridgeline, as well as provide fixes for known problems from previous releases. A Service Pack release is made available as a patch that can be installed over an existing Ridgeline installation.

  If you already have the Ridgeline software installed on your system when a Service Pack is released, you can upgrade the software by installing the patch bundle for the Service Pack; you do not need to reinstall the full product. See "Installing a Service Pack Release" on page 42 for information.

  If you do not already have the Ridgeline software installed on your system, to install the Service Pack, you must first install the base Ridgeline release, then install the patch bundle for the Service Pack.

- **EPICenter or Ridgeline Service Advisor to Ridgeline**. The Ridgeline 3.0 installer automatically detects all supported prior versions of the network management software and prompts you to perform the migration. The supported versions include: EPICenter 6.0 through 7.1 (including Service Packs) and Ridgeline Service Advisor 2.0 (including Service Packs). See "Upgrading from EPICenter or Ridgeline Service Advisor to Ridgeline" on page 46 for more information.

Table 2 summarizes the options for installing and upgrading the Ridgeline software.

Table 2: Ridgeline Installation and Upgrade Options

Release Type	Contents	Available Formats	When to Install	How to Install
Base Ridgeline Installation	Major Ridgeline software release	• Ridgeline installation CD • Large file downloadable from the Extreme Networks web site	You want to perform a fresh Ridgeline installation/upgrade to a new major release.	See "Installing the Ridgeline Server" on page 13.
Service Pack	New features and software fixes	• Smaller file that installs on top of an existing Ridgeline installation and integrates the Service Pack features and fixes into the existing installation.	You already have a base Ridgeline software release installed and you want to install the Service Pack features and fixes.	See "Installing a Service Pack Release" on page 42.
EPICenter to Ridgeline	Major Ridgeline software release	• Ridgeline installation CD • Large file downloadable from the Extreme Networks web site	You have a prior version of EPICenter or Ridgeline Service Advisor software installed and you want to install the Ridgeline software.	See "Upgrading from EPICenter or Ridgeline Service Advisor to Ridgeline" on page 46.

Installing a Service Pack Release

From time to time, Extreme Networks releases updates to the current Ridgeline software as Service Packs. Service Packs are minor releases that provide fixes for known problems from previous releases.

A Service Pack is released as a software patch that integrates the Service Pack fixes into an existing Ridgeline installation. If you already have the Ridgeline software installed on your system when a Service Pack is released, you can add the Service Pack updates by installing the patch release.

You can install a Service Pack release only on top of an existing base version of the same Ridgeline release. If you are still running the previous major release, you cannot install the Service Pack release. Instead, you must first install the full-installation version of the base version software. Follow the normal installation instructions under "Installing the Ridgeline Server" on page 13.

To summarize, upgrading to a Ridgeline Service Pack release consists of the following steps:

1 Install the base version of the Ridgeline software (if it is not already installed).

2 Install the Ridgeline Service Pack.

> **NOTE**
>
> It is strongly recommended that you backup your Ridgeline database before installing a Service Pack. If you need to uninstall the Service Pack and revert to the previous release for any reason, you will need to restore the database as it was prior to the upgrade.

> **NOTE**
>
> You cannot upgrade a Ridgeline beta release using this method. You must uninstall the beta release and then install the full Ridgeline release.

Installing a Service Pack on Windows Systems

To install a Ridgeline Service Pack release on a Windows system, follow these steps:

1 Download the Ridgeline Service Pack software from the Extreme Networks software downloads page and extract the contents of the zip file into a temporary directory.

The extraction process puts the files in a directory named `sp<n>win\patch<n>` (where `<n>` is a number related to the Service Pack) under the directory you select. Make sure you specify that folder names should be used when you perform the unzip.

2 Exit all Ridgeline clients.

3 If Ridgeline is running, shut down the Ridgeline server and database engine by stopping the services. See "Stopping the Server on Windows" on page 25 for instructions.

4 It is recommended that you back up your database. In addition, if the database transaction log, `basecamp.log`, remains in the top-level Ridgeline installation directory after the Ridgeline server has been shut down, you should save it also. (Under most circumstances `basecamp.log` is removed when the server stops.).

You should also save the files `basecamp.db` and `epicenter.db`, which reside in the `<Ridgeline_install_dir>\database\data` subdirectory, as well as any database transaction log files (for example, `basecamp.log` or `epicenter.log`) that reside in this directory.

> **NOTE**
>
> While upgrading to a Service Pack release, you may encounter a message indicating the Ridgeline server and Database have not stopped, even though they are not currently active. This can occur when the Ridgeline server and database are installed as services in Windows, and the Startup Type for these services is configured as Manual. If you encounter this message, remove the basecamp.log and epicenter.log files from the <Ridgeline_install_dir>\database\data directory.

> **NOTE**
>
> It is strongly recommend that you disable any anti-virus software before performing the Ridgeline installation. Anti-virus software may interfere with Sybase database upgrade.

5 Open a command window and change to the directory where you extracted the Service Pack files:

```
prompt:\> cd sp<n>win\patch<n>
```

6 Run the `install.bat` script.

- To install the Service Pack in the default Ridgeline installation directory (which is `C:\Program Files\Extreme Networks\Ridgeline Service Advisor 3.0\`) enter the `install.bat` command without a directory name. For example:

```
prompt:\> install.bat
```

-    To install the Service Pack in a non-default directory that has a name that includes spaces, be sure to specify the directory name in quotes. For example:

    `prompt:\> ` **`install.bat "C:\Non-Default Directory With Spaces\Ridgeline 3.0"`**

    This batch file calls a script that will back up the Ridgeline files to:

    `<Ridgeline_install_dir>\backup`

7   Restart the Ridgeline server and the database engine, if applicable (see "Starting the Server on Windows" on page 24).

8   Ensure that you clear your browser cache before reconnecting to the Ridgeline server.

Uninstalling the Service Pack on Windows Systems

NOTE

Please make sure you restore your previously backed-up database (backed up prior to installing the service pack) after uninstalling the service pack, to completely restore Ridgeline to its previous state.

If you need to uninstall the Service Pack release, do the following:

1   Exit all Ridgeline clients.

2   If Ridgeline is running, shut down the Ridgeline server and database engine by stopping the services. See "Stopping the Server on Windows" on page 25 for instructions on how to stop the Ridgeline services.

3   Open a command window and run the script `uninstall.bat` as follows:

`prompt:\> ` **`cd `** `<Ridgeline_install_dir>`**`\backup\`**`<service_pack_id>`**`\uninstaller`**

`prompt:\> ` **`uninstall.bat`**

The `<service_pack_id>` identifies the Ridgeline service pack and software build number you are uninstalling; for example, `sp1_32` or `sp2_69`.

This batch file calls a script that will restore backed up files from:

`<Ridgeline_install_dir>\backup\<service_pack_id>\`

4   Restart the Ridgeline server and the database engine. See "Starting the Server on Windows" on page 24 for instructions.

5   Ensure that you clear your browser cache before reconnecting to the Ridgeline server.

Installing a Service Pack on Solaris or Linux Systems

To install a Ridgeline Service Pack release on a Solaris or Linux system, follow these steps:

1   Download the Ridgeline Service Pack software from the Extreme Networks software downloads page and extract the contents of the file into a temporary directory.

The extraction process puts the files in a directory named `sp<n>sol/patch<n>` (for Solaris) or `sp<n>lin/patch<n>` (for Linux), where `<n>` is a number related to the Service Pack, under the directory you select. Make sure you specify that folder names should be used when you perform the extraction.

2   Exit all Ridgeline clients.

3   Shut down the Ridgeline server and database engines if they are running (see "Stopping the Server on Linux or Solaris" on page 25 for instructions).

4 It is recommended that you back up your database. In addition, if the database transaction log, `basecamp.log`, remains in the top-level Ridgeline installation directory after the Ridgeline server has been shut down, you should save it also. (Under most circumstances `basecamp.log` is removed when the server stops.)

You should also save the files `basecamp.db` and `epicenter.db`, which reside in the `/database/data` subdirectory under the Ridgeline installation directory, as well as any database transaction log files (for example, `basecamp.log` or `epicenter.log`) that reside in this directory.

5 Open a command shell and change to the directory where you extracted the Service Pack files:

`% cd cd `**`sp`**`<n>`**`sol/patch`**`<n>` (for Solaris)

`% cd cd `**`sp`**`<n>`**`lin/patch`**`<n>` (for Linux)

6 Run the script `install.sh`. To avoid permission errors, run the script as the same user that performed the original Ridgeline software installation.

- To install the Service Pack in the default installation directory (which is `/opt/ExtremeNetworks/RidgelineServiceAdvisor3.0/`) enter the `install.sh` command without a directory name. For example:

`% ./install.sh`

- To install the Service Pack in a non-default directory that has a name that includes spaces, be sure to specify the directory name in quotes. For example:

`% ./install.sh "Directory With Spaces/Ridgeline3.0"`

This script file calls a script that will back up Ridgeline files to `<Ridgeline_install_dir>`/backup

7 Restart the Ridgeline server and the database engine, if applicable (see "Starting the Server on Linux or Solaris" on page 24 for instructions).

Uninstalling the Service Pack on Solaris or Linux Systems

> **NOTE**
>
> Please make sure you restore your previously backed-up database (backed up prior to installing the service pack) after uninstalling the service pack, to completely restore Ridgeline to its previous state.

If you need to uninstall the Service Pack release, do the following:

1 Exit all Ridgeline clients.

2 Shut down the Ridgeline server and database engines if they are running. See "Stopping the Server on Linux or Solaris" on page 25 for instructions.

3 Open a command shell and run the script `uninstall.sh`. To avoid permission errors, run the script as the same user that performed the Ridgeline 3.0 patch installation.

`% `**`cd`**` <Ridgeline_install_dir>`**`/backup/`**`<service_pack_id>`**`/uninstaller`**

`% `**`./uninstall.sh`**

The `<service_pack_id>` identifies the Ridgeline service pack you are uninstalling. This is a string that starts with `sp`, followed by a service pack number and a software build number; for example; `sp1_69`. Check the `<Ridgeline_install_dir>`/backup directory to determine the correct service pack ID.

This script file will call a script that will restore backed-up files from `<Ridgeline_install_dir>`/backup

4   Restart the Ridgeline server and the database engine, if applicable. See "Starting the Server on Linux or Solaris" on page 24 for instructions.

Ensure that you clear your browser cache before reconnecting to the Ridgeline server.

Upgrading from EPICenter or Ridgeline Service Advisor to Ridgeline

To upgrade the EPICenter or Ridgeline Service Advisor software to the Ridgeline software do the following:

1   If you are installing from CD, you will find three installation executables, one for each platform (Windows, Linux, and Solaris). If you downloaded from the web site, only the executable for your platform will be included.

2   Start the installation wizard as follows:

For **Windows,** run `Ridgeline_3-0_win32.exe` or `Ridgeline_3-0_win64.exe`, depending on your version of the operating system.

For **Linux**:

a   If you downloaded the installation from the web site, change the permissions on the Linux bin file as follows:

`chmod 755 Ridgeline_3-0_linux32.bin`

or

`chmod 755 Ridgeline_3-0_linux64.bin`

(Skip this if you are installing from the CD).

b   Run the executable `Ridgeline_3-0_linux32.bin` or `Ridgeline_3-0_linux64.bin`, depending on your version of the operating system.

For **Solaris**:

a   If you downloaded the installation from the web site, change the permissions on the Solaris bin file:

`chmod 755 Ridgeline_3-0_solarisSPARC.bin`

(Skip this if you are installing from the CD).

b   Run the executable `Ridgeline_3-0_solarisSPARC.bin`

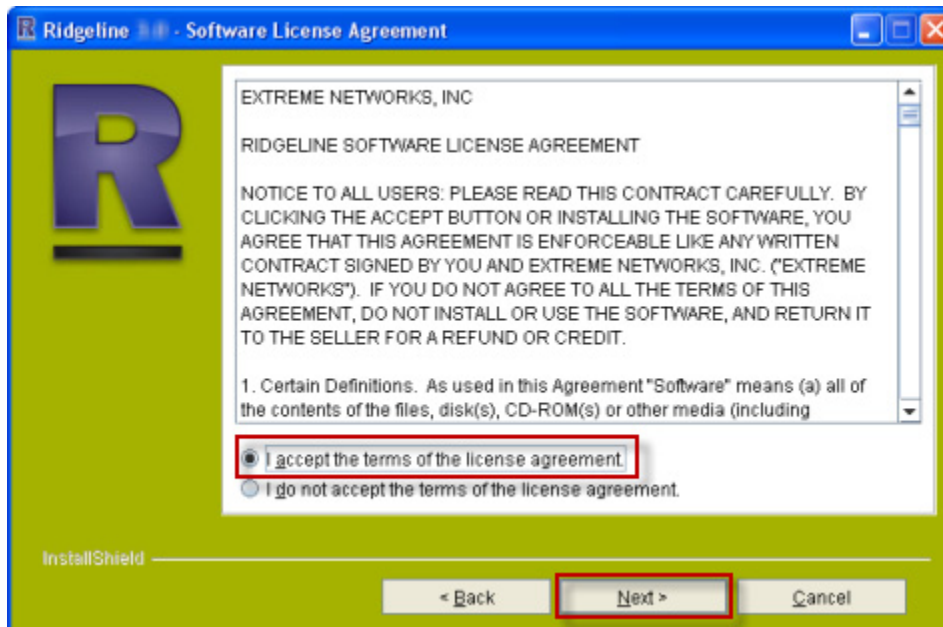InstallShield will extract the Ridgeline Installation Wizard. This may take a few minutes.

3 The Ridgeline InstallShield wizard welcome screen appears. Click **Next** to continue.
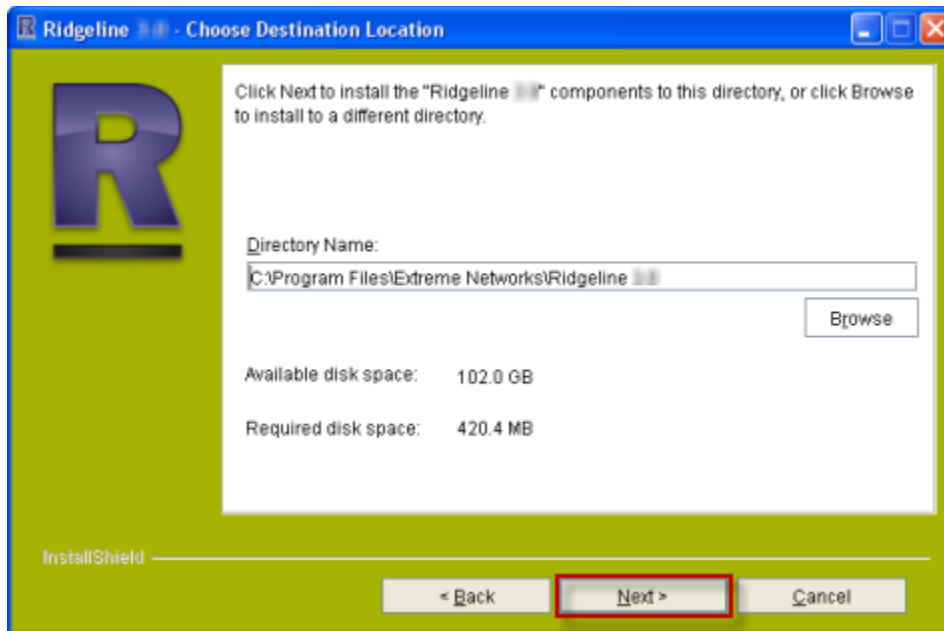
Figure 17: InstallShield Wizard Welcome Screen

4 Accept the terms of the license Agreement and click **Next** to continue.

Figure 18: License Agreement

5 Accept the default installation directory or click Browse to select a different location. Click **Next** to continue.

Figure 19: Installation Destination

6 Specify (verify or change) the ports to use for communication between the Ridgeline server and the database (default is 10553), between the server and Ridgeline clients via HTTP (default is 8080), and between the switches and FreeRADIUS server (default is 10559). You can use any port numbers (numbers between 1024 and 65535 are recommended), except port numbers already in use by another process, or ports 514, 3873, 8083, 10550, 10554, 10555, and 10556, which are used by Ridgeline for internal functions. Click **Next** to continue.

> **NOTE**
>
> If you intend to keep multiple versions of the Ridgeline server on the same computer, to avoid a port conflict, each Ridgeline server must be configured to use a unique port number to communicate with the database, or all but one of the Ridgeline servers must be disabled. If multiple versions of the Ridgeline server are detected on the computer, the older versions are disabled automatically during installation.

Figure 20: Port Information

7 Select the settings you want to enable (both are enabled by default):

- **Enable Automatic Updates**. This feature configures Ridgeline to automatically retrieve the most current information about device and slot software and bootrom images from the Extreme Networks website each time you connect the client to the Ridgeline server.

  If you enable this feature, Ridgeline will connect to the Extreme Networks web site at server start-up and once every 24 hours to obtain a list of the current software releases, and a list of any available Ridgeline patches. No information is sent to Extreme Networks except an indication that you are running with an evaluation license, if that is the case.

> **NOTE**
>
> If you disable this feature, you will not able to obtain software update information through the Software Update feature in the Firmware Manager. You can enable this feature at a later time through Ridgeline Administration, Server Properties tab, under the External Connections area. Click the checkbox to allow connection to the Extreme Networks web site.

- **Start Ridgeline 3.0 services automatically**. This feature starts Ridgeline services automatically when Windows starts. On Solaris/Linux systems, Ridgeline services start automatically upon startup and this setting is not user configurable.
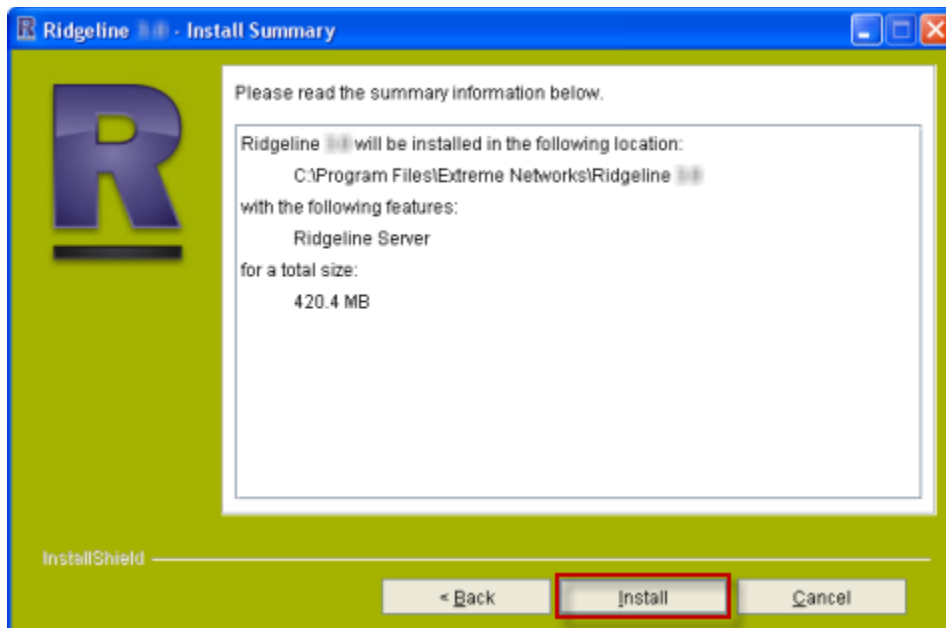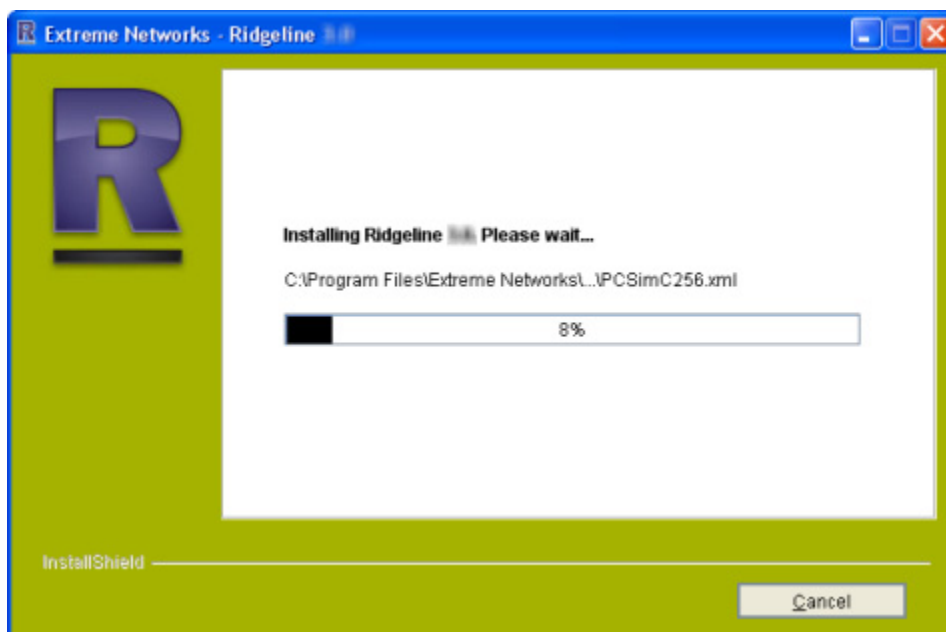
Click **Next** to continue.

Figure 21: Settings
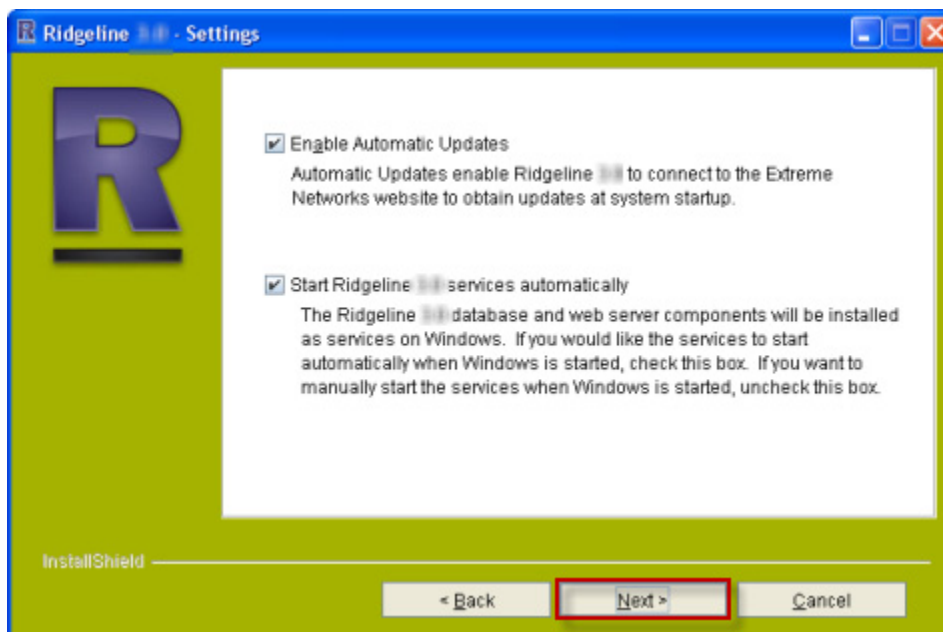
8 Verify the components and installation directory, and click **Install** to continue.

Figure 22: Installation Summary

The installation process begins.

Figure 23: Installation Progress

9   Select **Yes** to migrate the database or **No** to continue without doing so. Click **Next** to continue.

When you install the Ridgeline 3.0 software, the installer automatically detects all supported prior versions of the network management software and prompts you to perform the migration. The supported versions include: EPICenter 6.0 Service Pack 1 and later releases and Ridgeline Service Advisor 2.0 and later releases. Upgrades from the 32-bit version of EPICenter to the 64-bit version of Ridgeline 3.0 are not allowed. If you have one of the supported versions of software installed, you can migrate your database and other persistent data to the new installation of Ridgeline as part of the upgrade process. Migrating the database does not affect your previous installation; the old database is left intact and functional. (On Windows systems, this dialog box appears only if a previous installation of EPICenter or Ridgeline Service Advisor is detected.) Migration from versions of EPICenter earlier than 6.0 is not supported.
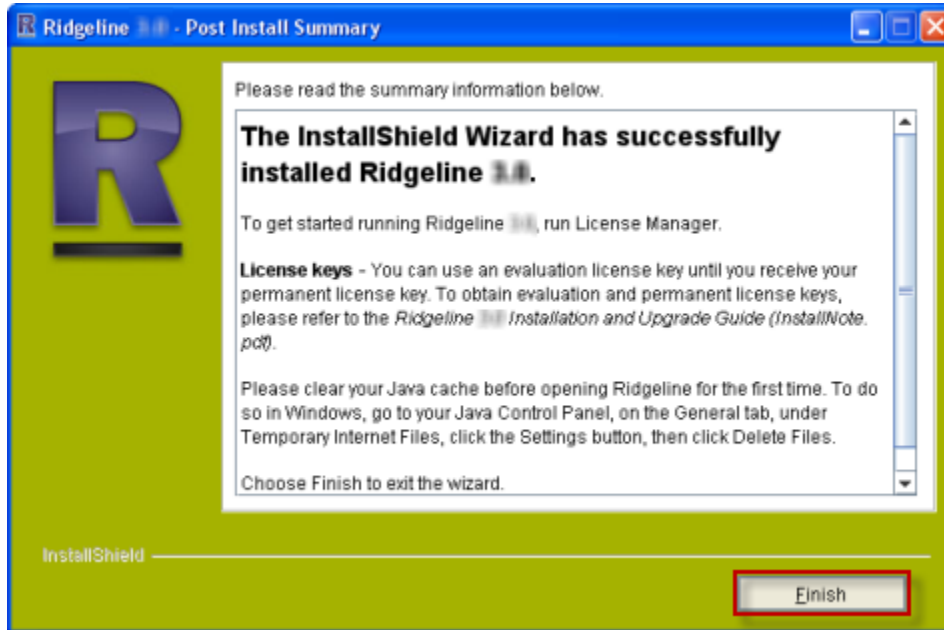
> **NOTE**
>
> You must reconfigure multi-homed configurations manually after installation. They do not migrate automatically.

Figure 24: Database Migration
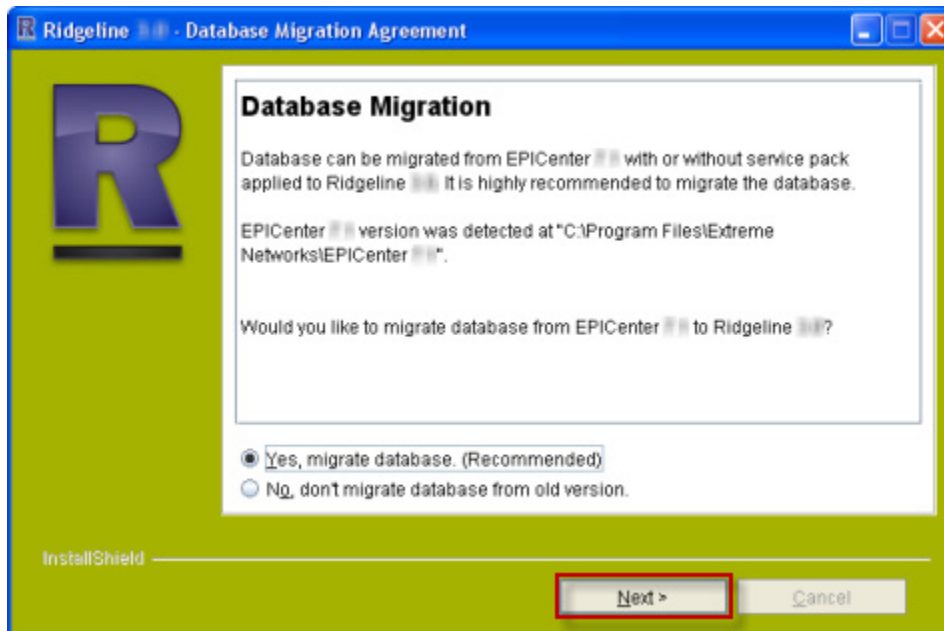
The InstallShield wizard displays a message when the installation is complete. Click **Finish** to exit the wizard.

Figure 25: Post Installation Summary

10 Click OK to accept the warning messages that displays. The VM tracking feature requires an FTP server running prior to starting Ridgeline. Refer to the "Managing Virtual Machines" chapter in the *Ridgeline Reference Guide* for more information.

Figure 26: VM Tracking Requires an FTP Server Running Warning
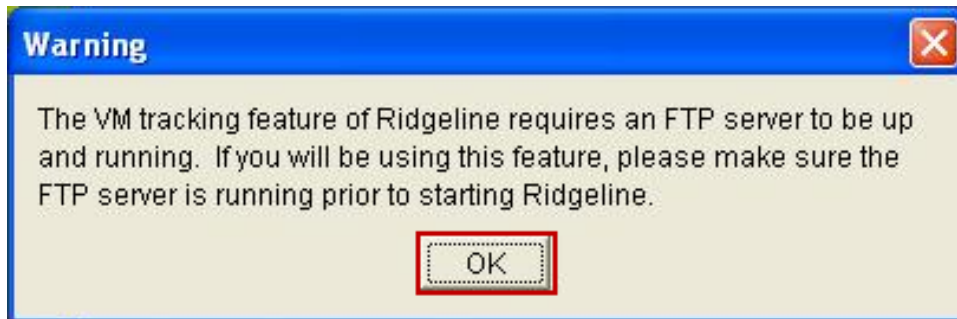
11 Ridgeline prompts you to restart your system. You must either restart your system or start the Ridgeline services manually before a client can connect to the Ridgeline server. Select one and then click **Finish** to complete the installation process.

Figure 27: Reboot
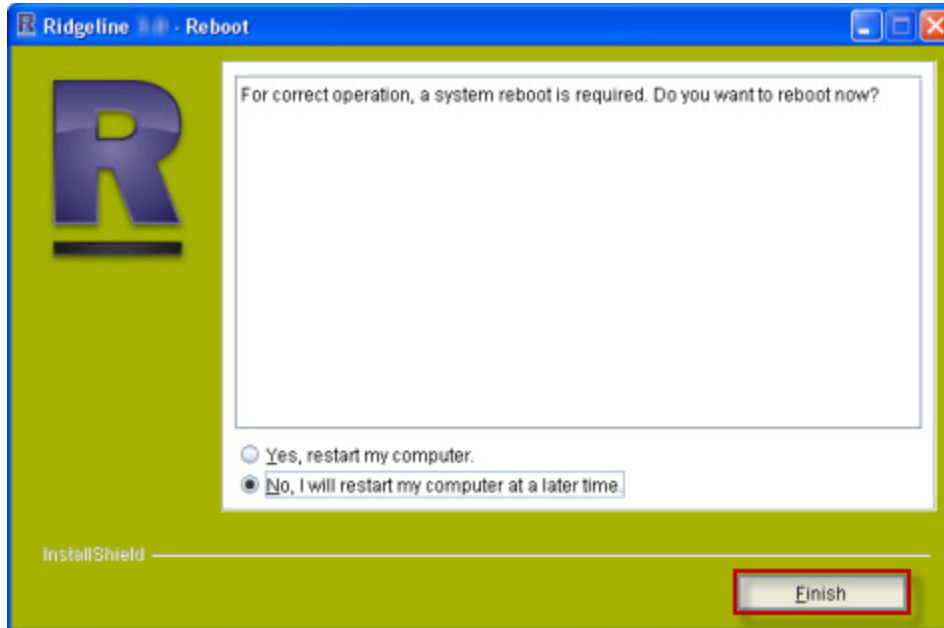
12 Launch the License Manager and install your Ridgeline licenses. You can do this at any time after you have installed the Ridgeline server. The server can be running while you do this, but this is not required. See "Adding or Upgrading a License Key" on page 23 for more detailed instructions.

Migrating the Database

You can migrate the database as part of the standard software installation procedure (as shown in Figure 24 on page 52) or manually, using the procedure described in this section.

NOTE

You must reconfigure multi-homed configurations manually after installation. You cannot migrate them.

The following examples describe how to perform data migration. In these procedures, EPICenter 6.0 SP5 to Ridgeline is used as examples.

For Linux and Solaris, follow the upgrade procedures in "Upgrading from EPICenter or Ridgeline Service Advisor to Ridgeline" on page 46."

When Ridgeline and a Previous Version are Installed on the Same System

To migrate data from an earlier version of EPICenter or Ridgeline to the latest version of Ridgeline when an older version is installed on the same system as the latest version of Ridgeline, do the following:

> ⚡ **WARNING!**
>
> This procedure overwrites any database information that is on the latest version of Ridgeline. We recommend you perform this procedure before you use Ridgeline.

1 Stop the Ridgeline and database services after it is installed on your server.

2 Start the Database Migration Assistant:

  a On a Windows system, from the Start menu go to Programs>Extreme Networks>Ridgeline>Database Migration Assistant.

  b On a Solaris/Linux system, go to: *<Ridgeline Installed Directory>*/database/bin/migratetool.bin.

 c The Database Migration Assistant dialog box opens. See Figure 28.

Figure 28: Database Migration Assistant Initial Dialog Box
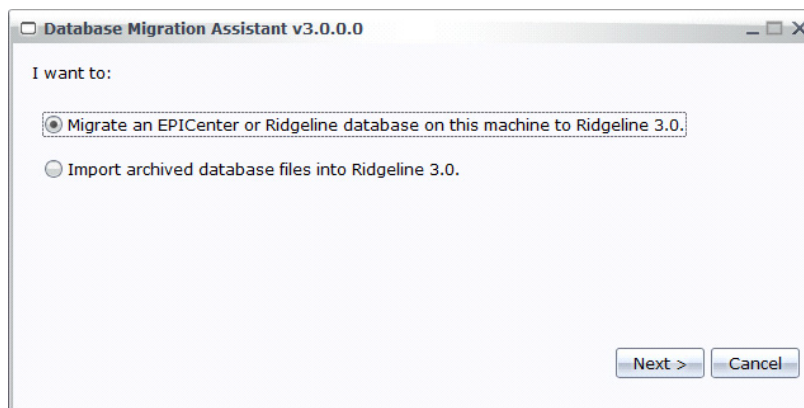
3 Choose: Migrate an EPICenter or Ridgeline database on this server to Ridgeline.

4 Click Next. A dialog box opens where you enter the path to the old product directory and the path to the newest Ridgeline version. See Figure 29.

Figure 29: Enter Directory Paths of Previous Version and Latest Version
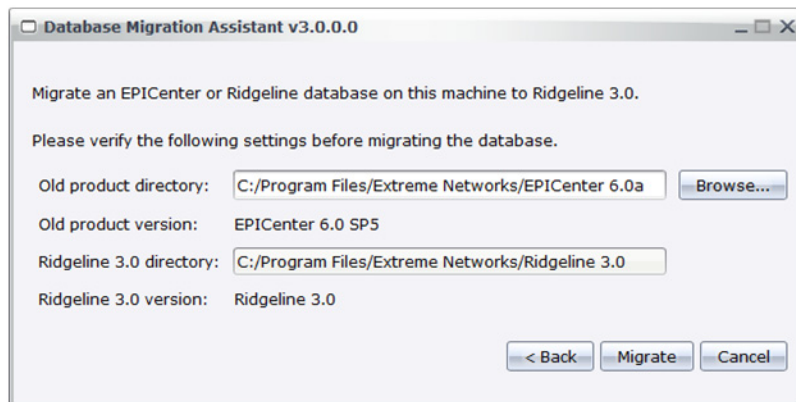
5 Click Migrate. The status screen opens showing the migration progress. See Figure 30.

Figure 30: Database Migration Progress
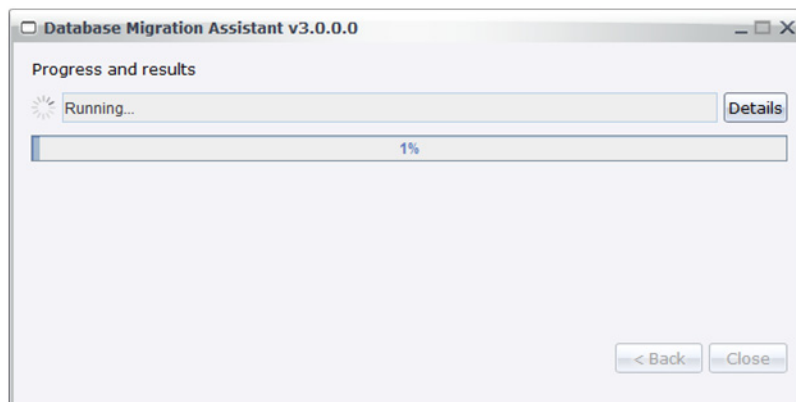
6 Reboot the server.

Exporting then Importing Data

Migrating data from another server or operating system to a server with Ridgeline installed requires two operations. First you must export the data from the server where the previous version of the application is installed then import the data on to the server where the latest version of Ridgeline is installed.

Exporting Database Information

To export data for migration to Ridgeline on a different server or to Ridgeline on a different operating system, do the following:

1 Start Ridgeline services on the server with the latest Ridgeline version.

2 Stop services on the server with EPICenter or previous versions of Ridgeline.

**3** Open a web browser on the server where the older version of EPICenter or Ridgeline is installed.

4 Enter the URL for the server where the latest version of Ridgeline is installed, for example: http://10.255.25.25:8080/exporter.html

The Ridgeline Welcome screen for the Exporter opens.

Figure 31: Ridgeline Exporter Welcome Screen

5 Click Launch Exporter. The Opening Exporter.jnlp dialog box opens. See Figure 32.

Figure 32: Opening Exporter.jnlp
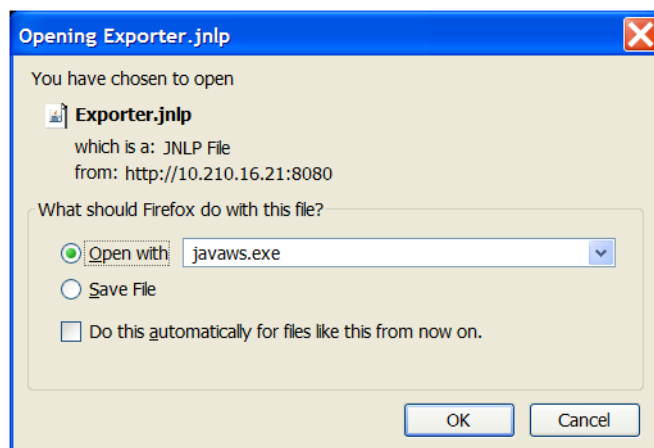
6 Use the default for: What should Firefox do with this file? Then click OK. The Database Exporter dialog opens which identifies the tool. See Figure 33.
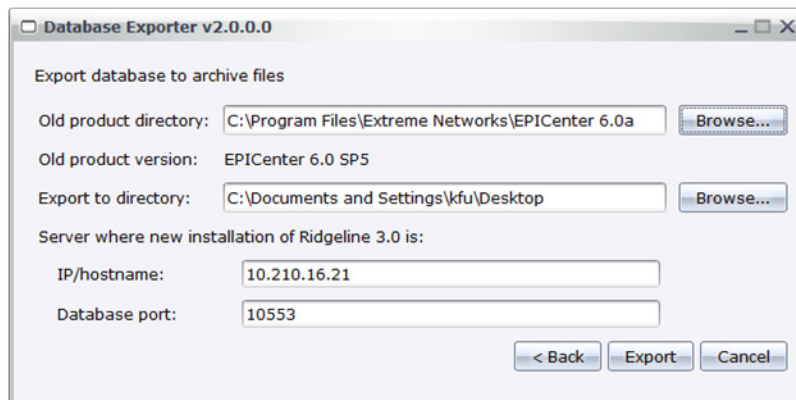
You are reminded: Please make sure you are running this tool on the server which has the old database.

Figure 33: Database Exporter Initial Dialog Box

7 Click Next. The Export database to archive files dialog box opens. See Figure 34.

Figure 34: Enter Paths in Database Exporter

8 Enter the directory path of the older version of the product. The old product version is shown.

9 Enter the directory path where you are migrating the database to.

10 Enter the server IP address or hostname where the new version of Ridgeline is installed.

11 Enter the database port. The default database port is 10553.

12 Click Export. The status screen opens showing the export progress. See Figure 35.

When the process completes, a folder named export is created that contains all the old database information. You can find it on the default download location. We recommend you place it on your desktop. The database information remains on the server with the earlier version of the software.

Figure 35: Export Database Progress Screen
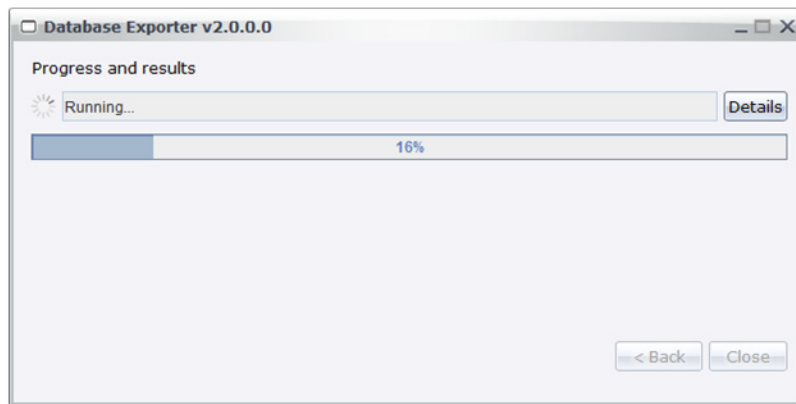
13 Copy the export folder to the server where the latest version of Ridgeline is installed.
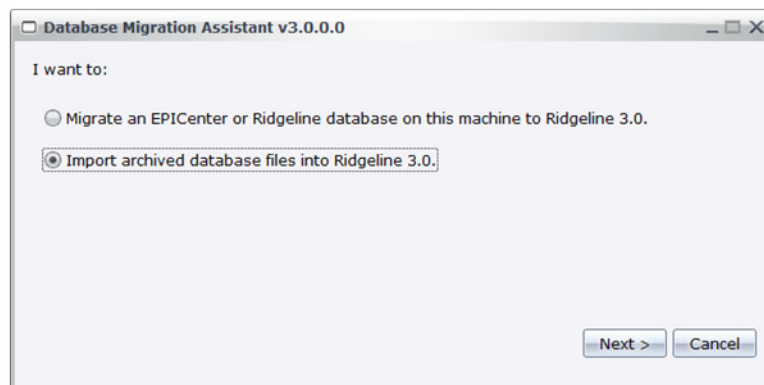
Importing Database Information

CAUTION

The procedure described in this section overwrites any database information on the latest version of Ridgeline. We recommend that you perform this pro cu du re before you use Ridgeline.

To import database information to the Ridgeline server, do the following:

1 Make sure all Ridgeline servers are stopped.

2 On the Start menu go to Programs>Extreme Networks>Ridgeline>Database Migration Assistant. The Database Migration Assistant dialog box opens. The Database Migration dialog box opens. See Figure 36.

Figure 36: Database Migration Assistant Import Database

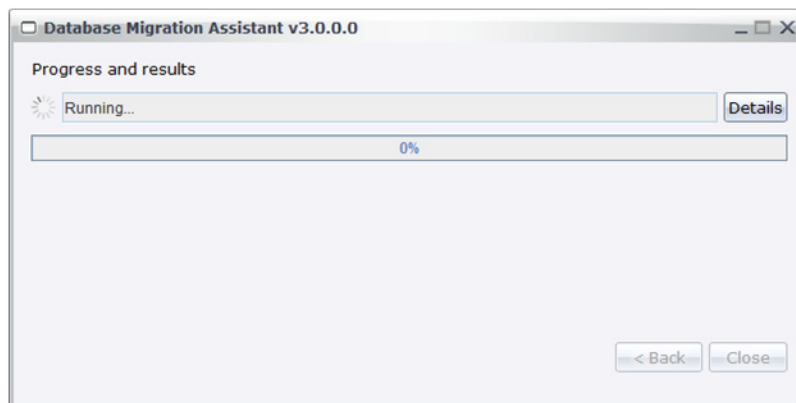**3** Choose: Import archived database files into Ridgeline.

4 Click Next. The dialog box opens where you enter the import information for the Ridgeline server. See Figure 37.

Figure 37: Import Archived Database Files
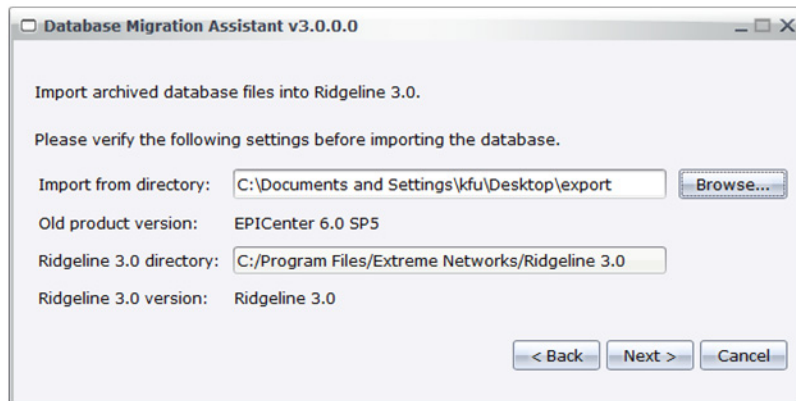
5 Enter the required information:

- Import from directory. The directory where the Export folder is located on the exporting server.
- The Ridgeline directory at Program Files>Extreme Networks>Ridgeline directory

6 Click Next. The status screen opens showing the migration progress. See Figure 38.

Figure 38: Import Migration Progress and Results

7 Reboot the server.